

# CURRICULUM VITAE

Montclair State University  
College for Community Health  
Department of Communication Sciences and Disorders  
October 16, 2023

## Subong Kim, Ph.D.

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### PART I. BACKGROUND AND GENERAL INFORMATION

#### *Education*

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<b>Ph.D.</b> , Speech and Hearing Science, University of Iowa, Iowa City, IA	2020
<b>M.S.</b> , Audiology, Hallym University of Graduate Studies, Seoul, South Korea	2015
<b>B.A.</b> , Law, Hanyang University, Seoul, South Korea	2013

#### *Academic Appointments*

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<b>Assistant Professor of Audiology</b>	2022 – Present
Department of Communication Sciences and Disorders, Montclair State University, Montclair, NJ	
<b>Post-doctoral Research Assistant</b>	2020 – 2022
Department of Speech Language and Hearing Sciences, Purdue University, West Lafayette, IN	

#### *Awards and Honors*

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<b>Emerging Research Grant (ERG) Scientist</b>	2022, 2023
Hearing Health Foundation	
<b>Early Career Travel Award</b>	2021
Acoustical Society of America	
<b>Postdoc Travel Award</b>	2021
Association for Research in Otolaryngology	
<b>Travel Award</b>	2019
Acoustical Society of America	

<b>Ph.D. Scholarship</b>	2019
Council of Academic Programs in Communication Sciences and Disorders	
<b>Graduate Student Travel Award</b>	2019
Association for Research in Otolaryngology	
<b>Student Travel Award Reimbursement (STAR) Program</b>	2018
American Academy of Audiology Foundation	
<b>Graduate Student Travel Award</b>	2017
Association for Research in Otolaryngology	

### ***Memberships in Academic, Professional, and Scholarly Societies***

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Member, American Auditory Society (AAS)	2021 – Present
Member, Acoustical Society of America (ASA)	2021 – Present
Member, Association for Research in Otolaryngology (ARO)	2017 – Present

### ***Certification and Clinical Audiology Experience***

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<b>Certificate of Competence in Audiology</b>	2015 – Present
Audiological Testing Service (South Korea)	
<b>Clinical Practicum in Audiology</b>	2013 – 2014
Department of Audiology, Hallym University of Graduate Studies, Seoul, South Korea	

### ***Patents***

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- Kim, S.** Belt-type portable hearing loop device for hearing aid user  
 KR 1019126320000, Oct 2018. <https://doi.org/10.8080/1020170116048>.
- Kim, S.** Hearing protection earmuffs for military use  
 KR 1016962700000, Jan 2017. <https://doi.org/10.8080/1020150134493>.
- Kim, S.** ITE type hearing aid which is doubly coated  
 KR 1013851890000, April 2014. <https://doi.org/10.8080/1020120098151>.

## **PART II. SCHOLARSHIP**

### ***Extramural Research Grants***

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**Hearing Health Foundation (Emerging Research Grant)** 10/01/2022 – 12/31/2023

*Influence of Individual Pathophysiology and Cognitive Profiles on Noise Tolerance and Noise Reduction Outcomes* (Role: PI, Total Amount of Award: \$50,000)

**Note: Second-year renewal received in Fall 2022 since coming to Montclair State University**

**Hearing Health Foundation (Emerging Research Grant)** 10/01/2021 – 09/30/2022

*Influence of Individual Pathophysiology and Cognitive Profiles on Noise Tolerance and Noise Reduction Outcomes* (Role: PI, Total Amount of Award: \$50,000)

**Note: ~\$20,000 transferred to Montclair State University**

**Royal National Institute for Deaf People (Flexi Grant F110)** 04/01/2021 – 03/31/2022

*Mechanism-based Approach to Optimization of Noise Reduction in Hearing Aids: Influence of Individual Traits on Outcomes and Preference* (Role: PI, Total Amount of Award: \$13,720)

### ***Peer-reviewed Scientific Articles***

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*Note: \* = Corresponding Author, † = MSU Student Author*

Shim, H., Gibbs, L., Rush, K., Ham, J., **Kim, S.**, Kim, S., & Choi, I.\* (2023). Effect of neurofeedback on cortical oscillations during auditory attention training. *Applied Sciences*, 13(14), 8499. <https://doi.org/10.3390/app13148499>.

Shim, H., **Kim, S.**, Hong, J., Gantz, B., & Choi, I.\* (2023). Differences in neural encoding of speech in noise between cochlear implant users with and without preserved acoustic hearing. *Hearing Research*, 427, 108649. <https://doi.org/10.1016/j.heares.2022.108649>.

Berger, J.I., Gander, P.E., **Kim, S.**, Schwalje, A.T., Woo, J., Na, Y., Holmes, A., Hong, J., Dunn, C., Hansen, M., Gantz, B., McMurray, B., Griffiths, T.D., & Choi, I.\* (2023). Neural correlates of individual differences in speech-in-noise performance in a large cohort of cochlear implant users. *Ear and Hearing*, 44(5), 1107-1120. <https://doi.org/10.1097/AUD.0000000000001357>.

**Kim, S.**, Wu, Y.-H., Bharadwaj, H.M., & Choi, I.\* (2022). Effect of noise reduction on cortical speech-in-noise processing and its variance due to individual noise tolerance. *Ear and Hearing*, 43(3), 849-861. <https://doi.org/10.1097/AUD.0000000000001144>.

**Kim, S.**, Emory, C., & Choi, I.\* (2021). Neurofeedback training of auditory selective attention enhances speech-in-noise perception. *Frontiers in Human Neuroscience*, 15, 676992. <https://doi.org/10.3389/fnhum.2021.676992>.

**Kim, S.**, Schwalje, A.T., Liu, A.S., Gander, P.E., McMurray, B., Griffiths, T.D., & Choi, I.\* (2021). Pre- and post-target cortical processes predict speech-in-noise performance. *NeuroImage*, 228, 117699. <https://doi.org/10.1016/j.neuroimage.2020.117699>.

- Kim, K., **Kim, S.**, & Lee, J.H.\* (2020). Comparison of speech recognition and subjective hearing handicap in elderly listeners as a function of degree of hearing loss. *Audiology and Speech Research*, 16(2), 115-123. <https://doi.org/10.21848/asr.200024>.
- Kim, S.**, Choi, I., Schwalje, A.T., Kim, K., & Lee, J.H.\* (2020). Auditory working memory explains variance in speech recognition in older listeners under adverse listening conditions. *Clinical Interventions in Aging*, 15, 395-406. <https://doi.org/10.2147/CIA.S241976>.
- Choi, I.\*, **Kim, S.**, & Schwalje, A.T. (2020). Cortical dynamics of speech-in-noise understanding. *Acoustical Science and Technology*, 41(1), 400-403. <https://doi.org/10.1250/ast.41.400>.

### ***Articles in Preparation/Review/Revision***

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*Note: \* = Corresponding Author, † = MSU Student Author*

- Kim, S.\***, Arzac, S.†, Dokic, N.†, Donnelly, J.†, Genser, N.†, Nortwich, K.†, and Rooney, A. (In Preparation). Subjective profiles of individual noise tolerance and insights on the correspondence between the neural signal-to-noise ratio and noise-reduction outcomes.
- Kim, S.\***, Arzac, S.†, Dokic, N.†, Donnelly, J.†, Genser, N.†, Nortwich, K.†, and Rooney, A. (In Preparation). Cortical and subjective measures of individual noise tolerance predict noise-reduction outcomes.
- Kim, S.**, Schroeder, M., & Bharadwaj, H.M.\* (In Preparation). Effect of noise-reduction processing on speech coding in the ascending auditory pathway and relationship to behavioral outcomes.

### ***Invited Talks***

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- Kim, S.** (2022). Mechanism-based approach to potential benefits of using noise reduction in hearing aids. Keynote speech. Audiology Seminar of the Korean Academy of Audiology, Virtual.
- Kim, S.**, Choi, I., & Wu, Y.-H. (2019). Effect of noise reduction on cortical speech processing in hearing aid users. Lecture for the special session “Acoustics outreach to budding scientists: Planting seeds for future clinical and physiological collaborations.” Meeting of the Acoustical Society of America, Louisville, KY.
- Kim, S.**, Schwalje, A.T., Emory, C., & Choi, I. (2017). Auditory neurofeedback training of selective attention and speech recognition in noise. Poster-teaser talk. Symposium of Advances and Perspectives in Auditory Neuroscience, Washington D.C.

## ***Conference Presentations***

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*Note: † = MSU Student Author*

Arzac, S.†, Dokic, N.†, Donnelly, J.†, Genser, N.†, Nortwich, K.†, Rooney, A., & **Kim, S.** (2024). Cortical and subjective measures of individual noise tolerance predict noise-reduction outcomes. To be presented at MidWinter Meeting of the Association for Research in Otolaryngology, Anaheim, CA.

**Kim, S.**, Arzac, S.†, Dokic, N.†, Donnelly, J.†, Genser, N.†, Nortwich, K.†, & Rooney, A. (2024). Differential correlations of neural signal-to-noise ratio and noise-reduction outcomes across subgroups. To be presented at MidWinter Meeting of the Association for Research in Otolaryngology, Anaheim, CA.

Paporto, S.†, McInerney, M., Besing, J., Koehnke, J., & **Kim, S.** (2023). Relationship between Acceptable Noise Level & SIN with Extended Bandwidth Amplification in Listeners with Mild-Moderate SNHL. To be presented at American Speech-Language-Hearing Association Convention, Boston, MA.

**Kim, S.**, & Bharadwaj, H.M. (2023). Neural measures of individual noise tolerance and noise-reduction outcomes. Scientific and Technology Conference of the American Auditory Society, Scottsdale, AZ.

Hong, J., Shim, H., **Kim, S.**, Hansen, M., Gantz, B., & Choi, I. (2022). Neural correlates of speech in noise perception differences between combined electric-acoustic stimulation and standard cochlear implants. Meeting of the Acoustical Society of America, Denver, CO.

Shim, H., **Kim, S.**, Lee, J., Gibbs, L., Rush, K., & Choi, I. (2022). Neural markers of improved auditory selective attention following neurofeedback training. Meeting of the Acoustical Society of America, Denver, CO.

Hong, J., Shim, H., **Kim, S.**, Hansen, M., Gantz, B., & Choi, I. (2022). Differences in neural encoding of speech in noise between cochlear implants with combined electric-acoustic stimulation and electric-only. MidWinter Meeting of the Association for Research in Otolaryngology, Virtual.

Gander, P., Berger, J., **Kim, S.**, Schwalje, A., Woo, J., Na, Y., Holmes, A., Hong, J., Dunn, C., Hansen, M., Gantz, B., McMurray, B., Griffiths, T., & Choi, I. (2022). Behavioural evidence for a relationship between auditory object formation and speech-in-noise processing in a cochlear implant population. MidWinter Meeting of the Association for Research in Otolaryngology, Virtual.

**Kim, S.**, & Bharadwaj, H.M. (2021). Subcortical measures of individual tolerance to background noise and sensitivity to speech distortions induced by noise-reduction processing. Meeting of the Acoustical Society of America, Seattle, WA.

**Kim, S.**, & Bharadwaj, H.M. (2021). Varying effects of hearing aid noise-reduction processing on the subcortical encoding of speech sounds across individuals. Symposium of Advances and Perspectives in Auditory Neuroscience, Virtual.

**Kim, S.**, Choi, I., Schwalje, A.T., Kim, K., & Lee, J.H. (2021). Modality-specific association between

- working memory and speech recognition in older listeners under adverse listening conditions. MidWinter Meeting of the Association for Research in Otolaryngology, Virtual.
- Gander, P., Berger, J., **Kim, S.**, Schwalje, A., Woo, J., Na, Y., Holmes, A., Hong, J., Dunn, C., Hansen, M., Gantz, B., McMurray, B., Griffiths, T., & Choi, I. (2021). Evidence for neuroplasticity in EEG responses to speech-in-noise within the first year after cochlear implant activation. MidWinter Meeting of the Association for Research in Otolaryngology, Virtual.
- Berger, J., Gander, P., **Kim, S.**, Schwalje, A., Woo, J., Na, Y., Holmes, A., Hong, J., Dunn, C., Hansen, M., Gantz, B., McMurray, B., Griffiths, T., & Choi, I. (2021). Neural correlates of speech-in-noise variance in cochlear implant users. MidWinter Meeting of the Association for Research in Otolaryngology, Virtual.
- Kim, S.**, Wu, Y.-H., & Choi, I. (2020). Electroencephalography-based optimization of noise reduction in hearing aids. MidWinter Meeting of the Association for Research in Otolaryngology, San Jose, CA.
- Sarow, A., **Kim, S.**, Geller, J., & Choi, I. (2020). The effect of selective attention training on effort during speech-in-noise perception. MidWinter Meeting of the Association for Research in Otolaryngology, San Jose, CA.
- Kim, S.**, Geller, J., Holmes, A., McMurray, B. & Choi, I. (2019). Cortical dynamics of word-in-noise recognition in cochlear implant users. Symposium of Advances and Perspectives in Auditory Neuroscience, Chicago, IL.
- Geller, J., Holmes, A., Kim, K-J., **Kim, S.**, & Choi, I. (2019). Auditory attentional modulation in cochlear implant users. Symposium of Advances and Perspectives in Auditory Neuroscience, Chicago, IL.
- Choi, I., **Kim, S.**, Schwalje, A.T., & Woo, J. (2019). Cortical dynamics of word-in-noise recognition. Meeting of the Acoustical Society of America, San Diego, CA.
- Kim, S.**, Emory, C., Schwalje, A.T., & Choi, I. (2019). Selective attention training enhances speech-in-noise recognition. MidWinter Meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Kim, K-J., Giuliani, N., **Kim, S.**, Emory, C., Litovsky, R.Y., Dunn, C.C., Gantz, B.J., & Choi, I. (2019). Cochlear implant-induced changes of speech-in-noise processes in single-sided deafness. MidWinter Meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Choi, I., Holmes, A., **Kim, S.**, Schwalje, A.T., Liu, A.S., Gander, P.E., Na, Y., Woo, J., McMurray, B., & Griffiths, T.D. (2019). Neural correlates of speech-in-noise variance in cochlear implant users. MidWinter Meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Na, Y., **Kim, S.**, Choi, I., & Woo, J. (2019). Phoneme-based analysis of continuous speech-evoked cortical responses reveals speech intelligibility. MidWinter Meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Choi, I., Emory, C., **Kim, S.**, Schwalje, A.T. (2018). Neurofeedback training of auditory selective attention enhances speech-in-noise understanding. Meeting of the Acoustical Society of America,

Minneapolis, MN.

- Schwalje, A.T., **Kim, S.**, Gfeller, K., & Choi, I. (2018). Temporal coherence, but not spectral coherence, of background noise improves speech discrimination for cochlear implantees. (2018). MidWinter Meeting of the Association for Research in Otolaryngology, San Diego, CA.
- Choi, I., **Kim, S.**, Schwalje, A.T., Dunn, C.C., & Gantz, B.J. (2018). Cortical evoked responses reflect cochlear implant-induced improvement of speech-in-noise understanding in single-sided deafness. (2018). MidWinter Meeting of the Association for Research in Otolaryngology, San Diego, CA.
- Choi, I., **Kim, S.**, Schwalje, A.T., Na, Y., Gander, P.E., Liu, A.S., Woo, J., McMurray, B., & Griffiths, T.D. (2018). Frontal and auditory cortex interplay predicts variances of speech-in-noise understanding in cochlear implant users. MidWinter Meeting of the Association for Research in Otolaryngology, San Diego, CA.
- Kim, S.**, Schwalje, A.T., Gander, P.E., Liu, A.S., Griffiths, T.D., & Choi, I. (2018). Natural speech-evoked frontal cortex response reflects speech-in-noise understanding difficulty. MidWinter Meeting of the Association for Research in Otolaryngology, San Diego, CA.
- Kim, S.**, Schwalje, A.T., Emory, C., & Choi, I. (2017). Neurofeedback training of selective attention and speech-in-noise recognition. Meeting of the Society for Neuroscience, Washington D.C.
- Na, Y., **Kim, S.**, Choi, I., & Woo, J. (2017). Machine-learning classification of speech-evoked electroencephalographic signals reveals speech intelligibility. Meeting of the Society for Neuroscience, Washington D.C.
- Choi, I., **Kim, S.**, & Schwalje, A.T. (2017). Neural substrates of behavioral performance in a speech-in-noise task. Meeting of the Society for Neuroscience, Washington D.C.
- Schwalje, A.T., **Kim, S.**, & Choi, I. (2017). Differential phoneme confusion patterns linked with performance in a speech-in-noise task. Meeting of the Society for Neuroscience, Washington D.C.
- Kim, S.**, Schwalje, A.T., Emory, C., & Choi, I. (2017). Auditory neurofeedback training of selective attention and speech recognition in noise. Symposium of Advances and Perspectives in Auditory Neuroscience, Washington D.C.
- Choi, I., **Kim, S.**, Schwalje, A.T., Liu, A.S., Gander, P.E., Na, Y., Woo, J., McMurray, B., & Griffiths, T.D. (2017). Neural substrates of individual differences in speech-in-noise understanding ability. Symposium of Advances and Perspectives in Auditory Neuroscience, Washington D.C.
- Na, Y., **Kim, S.**, Choi, I., & Woo, J. (2017). Machine-learning classification of speech-evoked electroencephalographic signals reveals speech intelligibility. Symposium of Advances and Perspectives in Auditory Neuroscience, Washington D.C.
- Kim, S.**, Schwalje, A.T., Emory, C., & Choi, I. (2017). Neurofeedback training on selective attention to improve speech-in-noise recognition. Iowa Speech-Language Hearing Association Convention, West Des Moines, IA.
- Choi, I., **Kim, S.**, Schwalje, A.T., Gander, P.E., McMurray, B., & Griffiths, T.D. (2017). Cortical responses reveal individual differences in speech-in-noise understanding ability. International Conference on Auditory Cortex, Banff, Alberta, Canada.

- Kim, S., Choi, I., **Kim, S.**, & Lansing, C.M. (2017). Contribution of selective attention ability to the performance in clinical speech-in-noise tests. American Academy of Audiology Conference, Indianapolis, IN.
- Kim, S.**, Griffiths, T.D., Gander, P.E., & Choi, I. (2017). Neural correlates of normal hearing listeners' variance in the ability to understand speech in noise. American Academy of Audiology Conference, Indianapolis, IN.
- Lansing, C.M., Kim, S., **Kim, S.**, & Choi, I. (2017). Relationship between speech-in-noise understanding performance and mismatch negativity. American Academy of Audiology Conference, Indianapolis, IN.
- Kim, S., **Kim, S.**, Lansing, C.M., & Choi, I. (2017). Contribution of selective attention ability to the speech-in-noise understanding performance. Scientific and Technology Conference of the American Auditory Society, Scottsdale, AZ.
- Choi, I., Emory, C., **Kim, S.**, & Gander, P.E. (2017). Selective attention ability explains variance of speech-in-noise understanding performance in cochlear implant users. MidWinter Meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Liu, A.S., Hubbard, A.D., **Kim, S.**, & Choi, I. (2017). Frontal P2 cortical evoked potentials in response to ongoing speech. MidWinter Meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Kim, S.**, Griffiths, T.D., Gander, P.E., & Choi, I. (2017). Neural correlates of variance in speech-in-noise understanding performance. MidWinter Meeting of the Association for Research in Otolaryngology, Baltimore, MD.
- Kim, S.**, Wu, Y.-H., & Bentler, R.A. (2016). Importance of optimizing audibility during the hearing aid fitting to ensure real-world benefit. Iowa Speech-Language Hearing Association Convention, Iowa City, IA.
- Choi, I., **Kim, S.**, Gander, P.E. (2016). Auditory selective attention in cochlear implant users. Meeting of the Acoustical Society of America, Honolulu, HI.
- Kim, S.**, Wu, Y.-H., Stangl, E.A., Miller, C., Bishop, C.W., Tremblay, K.L., & Bentler, R.A. (2016). Contribution of aided audibility to real-world hearing aid outcomes. Scientific and Technology Conference of the American Auditory Society, Scottsdale, AZ.
- Kim, S.**, Kim, K., & Lee, J.H. (2015). How working memory of the elderly is related to sentence recognition in adverse listening conditions? Korean Audiological Society Conference, Seoul, South Korea.
- Kim, S.**, Choi, D., Lee, J.H., & Kim, K. (2014). Measurement of working memory and sentence recognition in the elderly. Korean Academy of Audiology Conference, Chuncheon, South Korea.



## **PART III. TEACHING**

### ***Teaching Activities***

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#### **Didactic Courses at Montclair State University**

CSND 545: Diagnostic Procedures in Audiology II	Spring 2023
CSND 710: Neurophysiology for Hearing, Language, and Speech	Spring 2023
CSND 701: Auditory Anatomy and Physiology	Fall 2022, Fall 2023
CSND 702: Clinical Instrumentation	Fall 2022, Fall 2023

#### **Directed and Independent Studies at Montclair State University**

CSND 852: Directed Research III	Fall 2023
CSND 851: Directed Research II	Fall 2023
CSND 850: Directed Research I	Summer 2023
CSND 835: Practicum in University Teaching	Spring 2023

#### **Didactic Courses at University of Iowa**

CSD 3113: Introduction to Hearing Science	Spring 2019
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## **PART IV. SERVICE**

### ***Service to Professional Societies***

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#### **Ad Hoc Reviewer** 2016 – Present

Ear and Hearing, Journal of the American Academy of Audiology, Journal of Speech, Language, and Hearing Research, Audiology and Speech Research, Journal of Neurophysiology, Frontiers in Neuroscience, Frontiers in Psychology, Frontiers in Aging Neuroscience

### ***Service within Montclair State University***

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#### **Department of Communication Sciences and Disorders**

Chair, Audiology Research Restructuring Committee	2023 – Present
Advisor, Audiology Student Advisory Committee: Class of 2025	2023 – Present
Member, Search Committee: Audiology Faculty Position	2023 – Present
Member, Search Committee: Minor Instructional Specialist Position	2023
Member, Search Committee: Department Chair Position	2022 – 2023
Member, Audiology Curriculum Committee	2022 – Present
Chair/Member, Student Research Project Committee	2022 – Present

## ***Involvement in Student Research Project***

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### **Current Audiology Doctoral (Au.D.) Students at Montclair State University**

Helen Rubio, Research Project Committee (Chair)	2023 – Present
Katie Matofsky, Research Project Committee (Chair)	2023 – Present
Maxim St.Germain, Research Project Committee (Chair)	2023 – Present
Erin Douglas, Research Project Committee (Member)	2023 – Present
Alyssa Bonapace, Research Project Committee (Member)	2023 – Present
Vanessa Coppola, Research Project Committee (Member)	2023 – Present
Cindy Fernandez, Research Project Committee (Member)	2022 – Present
Salvatore Paporto, Research Project Committee (Member)	2022 – Present