

Inyong Choi, Ph.D.

Department of Communication Sciences and Disorders, University of Iowa
Department of Otolaryngology – Head and Neck Surgery, University of Iowa Hospitals and Clinics

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EDUCATION AND PROFESSIONAL HISTORY

Post Graduate Education

2011 - 2015 **Postdoctoral Fellow**, Auditory Neuroscience, Boston University
Mentor(s): Shinn-Cunningham, Barbara G

Higher Education

2008 **PhD**, Electrical Engineering & Computer Science, Seoul National University
Supporting Areas / Minor: Psychoacoustics
2003 **MS**, Electrical Engineering & Computer Science, Seoul National University
Supporting Areas / Minor: Psychoacoustics
2001 **BS**, Electrical Engineering, Seoul National University

Professional and Academic Positions

2021 - Present **Associate Professor (secondary appointment)**, Department of Otolaryngology - Head and Neck Surgery, University of Iowa Hospitals and Clinics
2021 - Present **Associate Professor (primary appointment)**, Department of Communication Sciences and Disorders, University of Iowa
2016 - 2021 **Assistant Professor (secondary appointment)**, Department of Otolaryngology - Head and Neck Surgery, University of Iowa Hospitals and Clinics
2015 - 2021 **Assistant Professor (primary appointment)**, Department of Communication Sciences and Disorders, University of Iowa
2014 - 2015 **Part-time Course Instructor**, Communication Science and Disorders, Northeastern University
2011 - 2015 **Post-doctoral Associate**, Center for Computational Neuroscience and Neural Technology, Boston University
2015 **Research Assistant Professor**, Speech, Language, and Hearing Sciences, Sargent College of Health and Rehabilitation Sciences, Boston University
2013 - 2015 **Research Affiliate**, McGovern Institute for Brain Research, Massachusetts Institute of Technology
2008 - 2011 **Senior Engineer**, Digital Media & Communications R&D Center, Samsung Electronics
2006 - 2007 **Visiting Scholar**, Cognitive and Neural Systems, Boston University

Honors and Awards

2014 **Association for Research in Otolaryngology (ARO) Travel Award**, Recipient for Annual MidWinter Meeting 2014
2014 **Center for Computational Neuroscience and Neural Technology (CompNet) Travel Award**, Recipient
2014 **Erasmus Mundus Auditory Cognition Network Best Presentation Award**, Awardee
2014 **Erasmus Mundus Auditory Cognition Network Travel Grant**, Recipient
2013 - 2014 **Post-doctoral Fellowship**, National Research Foundation of Korea, Recipient
2006 - 2007 **Grant for International Research Collaboration**, National Research Foundation of Korea, Recipient
2005 **Best Presented Paper**, Fall Conference, Institute of Electronics and Information Engineers of Korea, Awardee

2005

Best Presented Paper, Spring Conference, Acoustical Society of Korea, Awardee**Memberships**

2016 - Present Acoustical Society of America
 2014 - Present Society for Neuroscience
 2013 - Present Association for Research in Otolaryngology
 2006 - 2008 Institute of Electrical and Electronics Engineers

TEACHING**Courses Taught at the University of Iowa**

Term	Course#	Title	Ten-Day Enrollment	Final Enrollment
Fall 2022	CSD:5511:0001	Introduction to Doctoral Research	3	3
Fall 2022	CSD:6230:0001	Psychoacoustics	6	6
Spring 2022	CSD:3113:0AAA	Introduction to Hearing Science	88	88
Spring 2022	CSD:5253:0001	Sp Perception in Listeners with Hrg Loss	10	10
Fall 2021	CSD:5511:0001	Introduction to Doctoral Research	5	5
Fall 2021	CSD:6230:0001	Psychoacoustics	6	6
Fall 2021	CSD:7590:4432	Research	1	1
Spring 2021	CSD:7238:0001	Capstone Requirement	4	4
Spring 2021	CSD:4098:7183	Honors Thesis	1	1
Spring 2021	CSD:3113:0A01	Introduction to Hearing Science	30	30
Spring 2021	CSD:3113:0A02	Introduction to Hearing Science	20	20
Spring 2021	CSD:3113:0A03	Introduction to Hearing Science	29	29
Spring 2021	CSD:3113:0A04	Introduction to Hearing Science	9	9
Spring 2021	CSD:3113:0AAA	Introduction to Hearing Science	88	88
Spring 2021	CSD:3993:1743	Research Practicum	1	1
Spring 2021	CSD:5253:0001	Sp Perception in Listeners with Hrg Loss	10	10
Fall 2020	CSD:4098:9568	Honors Thesis	1	1
Spring 2020	CSD:7238:0001	Capstone Requirement	10	10
Spring 2020	CSD:4098:7183	Honors Thesis	1	1
Spring 2020	CSD:3113:0A01	Introduction to Hearing Science	30	30
Spring 2020	CSD:3113:0A02	Introduction to Hearing Science	19	19

Term	Course#	Title	Ten-Day Enrollment	Final Enrollment
Spring 2020	CSD:3113:0A03	Introduction to Hearing Science	30	30
Spring 2020	CSD:3113:0A04	Introduction to Hearing Science	4	4
Spring 2020	CSD:3113:0AAA	Introduction to Hearing Science	83	83
Spring 2020	CSD:4186:8290	Probs: Sp/Hearing Processes & Disorders	1	1
Spring 2020	CSD:7590:7891	Research	1	1
Spring 2020	CSD:3993:7587	Research Practicum	1	1
Spring 2020	CSD:5253:0001	Sp Perception in Listeners with Hrg Loss	7	7
Fall 2019	CSD:4098:4982	Honors Thesis	1	1
Fall 2019	CSD:6230:0001	Psychoacoustics	16	16
Fall 2019	CSD:7590:6410	Research	1	1
Fall 2019	CSD:3993:6671	Research Practicum	1	1
Spring 2019	CSD:7238:0001	Capstone Requirement	8	8
Spring 2019	CSD:4186:3864	Probs: Sp/Hearing Processes & Disorders	1	1
Spring 2019	CSD:7590:3681	Research	1	1
Spring 2019	CSD:3993:3722	Research Practicum	1	1
Spring 2019	CSD:5253:0001	Sp Perception in Listeners with Hrg Loss	10	10
Fall 2018	CSD:6230:0001	Advanced Hearing Science	7	
Fall 2018	CSD:7590:1101	Research	1	
Spring 2018	CSD:7238:0001	Capstone Requirement	4	
Spring 2018	HONR:3994:9565	Honors Research Practicum	1	
Spring 2018	CSD:4098:8755	Honors Thesis	1	
Spring 2018	CSD:3113:0AAA	Introduction to Hearing Science	86	
Spring 2018	CSD:4186:9220	Probs: Sp/Hearing Processes & Disorders	2	
Spring 2018	CSD:7590:9725	Research	1	
Spring 2018	CSD:5253:0001	Sp Perception in Listeners with Hrg Loss	10	
Fall 2017	CSD:6230:0001	Advanced Hearing Science	9	

Term	Course#	Title	Ten-Day Enrollment	Final Enrollment
Fall 2017	CSD:4098:6491	Honors Thesis	1	
Fall 2017	CSD:7590:7360	Research	1	
Spring 2017	CSD:3113:0AAA	Introduction to Hearing Science	75	
Spring 2017	CSD:7590:4409	Research	2	
Spring 2017	CSD:3993:4453	Research Practicum	1	
Spring 2017	CSD:5253:0001	Sp Perception in Listeners with Hrg Loss	7	
Fall 2016	CSD:6230:1	Advanced Hearing Science	12	
Fall 2016	CSD:4186:3490	Probs: Sp/Hearing Processes & Disorders	1	
Fall 2016	CSD:7590:3112	Research	3	
Summer 2016	CSD:7590:2717	Research	1	
Spring 2016	CSD:3113:0AAA	Introduction to Hearing Science	54	
Spring 2016	CSD:4186:0061	Probs: Sp/Hearing Processes & Disorders	1	
Spring 2016	CSD:7590:0061	Research	1	
Spring 2016	CSD:5253:0001	Sp Perception in Listeners with Hrg Loss	7	
Fall 2015	CSD:5224:0001	System & Signal Theory Speech & Hear Sci	15	

Student Mentoring

AuD - Capstone Research, Committee Chair

September 2021 - Present Gibbs, Leah; *In Process*
 July 2019 - May 2021 Sarow, Amy; *Completed*
 March 2019 - Present Hanson, Emily; *Completed*
 January 2019 - Present Scarborough, Ellen; *Completed*
 September 2019 - May 2020 Ellis, Tyler; *Completed*
 January 2016 - May 2018 Lancing, Courtney; *Completed*

AuD - Capstone Research, Committee Member

July 2018 - March 2020 Lancaster, Eileen; *Completed*
 August 2018 - May 2019 Watson, Gabrielle; *Completed*
 October 2017 - May 2019 Haberman, Paige; *Completed*

BA - Iowa Center for Research by Undergraduates Fellowship

September 2021 – Present Rush, Karsyn; *In Process*
 January 2022 – Present Croke, Lily; *In Process*

August 2019 - May 2021	Sourwine, Olivia; <i>Completed</i>
October 2019 - May 2021	Beaird, Katie; <i>Completed</i>
January 2018 - May 2019	Hauser, Rebecca; <i>Completed</i>
March 2016 - May 2018	Emory, Caroline; <i>Completed</i>

BA - Supervised Research

September 2021 – Dec 2022	Smith, Meg; <i>Completed</i>
March 2020 – May 2022	Sobecki, Gina; <i>Completed</i>
February 2020 - May 2021	Orr, Mallory; <i>Completed</i>
January 2020 - May 2021	Brisker, Regan; <i>Completed</i>

BA - Undergraduate Honors Thesis

September 2021 – Present	Rush, Karsyn; <i>In Process</i>
January 2022 – Present	Croke, Lily; <i>In Process</i>
September 2019 - May 2021	Sourwine, Olivia; <i>Completed</i>
August 2018 - May 2020	Wickham, Meghan; <i>Completed</i>
August 2017 - May 2018	Hanson, Emily; <i>Completed</i>

MA - Master's Thesis Committee Member

December 2018 - December 2019	Kelley, Brianna; <i>Completed</i>
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MD - Postdoctoral Research Supervision

March 2016 – August 2022	Schwalje, Adam; <i>Completed</i>
November 2016 - July 2017	Bonnard, Damien; <i>Completed</i>

PhD - Dissertation Committee Chair

August 2021 – Present	Howerton, Kayla; <i>In Process</i>
August 2022 – Present	Alsabbagh, Nour; <i>In Process</i>
August 2022 – Present	Ham, Jusung; <i>In Process</i>
August 2015 - May 2020	Kim, Subong; <i>Completed</i>
August 2016 - May 2017	Hubbard, April; <i>Withdrawn</i>

PhD - Dissertation Committee Member

April 2018 – May 2022	Jorgensen, Erik; <i>Completed</i>
October 2016 – February 2022	Na, Youngmin; <i>Completed</i>
September 2016 – May 2020	Sarrett, McCall; <i>Completed</i>
August 2016 - May 2021	Kim, Jeong-Seo; <i>Completed</i>
August 2016 – May 2022	Venkitakrishnan, Soumya; <i>Completed</i>
January 2017 - May 2019	Deng, Yuqi; <i>Completed</i>
August 2015 - May 2018	Tejani, Viral; <i>Completed</i>

PhD - Postdoctoral Research Supervision

April 2022 – Present	Na, Youngmin; <i>In Process</i>
January 2021 – August 2022	Shim, Hwan; <i>Completed</i>

August 2020 - Present	Smith, Francis; <i>In Process</i>
April 2019 - July 2020	Geller, Jason; <i>Completed</i>
May 2018 - July 2019	Kim, Kyung-Joong; <i>Completed</i>
PhD - Visiting Scholar	
August 2016 - July 2017	Woo, Jihwan

SCHOLARSHIP

Publications

CLAS * System * = Senior Author, Major Contribution, ** = Secondary Contribution *** = Equal Contribution, **** = Minor Contribution

Refereed Articles

1. * Shim, H., Gibbs, L., Rush, K., Ham, J., Kim, S., Kim, S., & Choi, I. (2023). Neural Mechanisms Related to the Enhanced Auditory Selective Attention Following Neurofeedback Training: Focusing on Cortical Oscillations. *Applied Sciences*, 13(14), 8499.
2. * Berger, J. I., Phillip E. Gander, Subong Kim, Adam T. Schwalje, Jihwan Woo, Young-min Na, Ann Holmes, Jean Hong, Camille Dunn, Marlan Hansen, Bruce Gantz, Bob McMurray, Timothy D. Griffiths, Inyong Choi. (2023). Neural correlates of individual differences in speech-in-noise performance in a large cohort of cochlear implant users. *Ear and Hearing*. 10.1097/AUD.0000000000001357
3. * Lee, J-H., Shim, H., Gantz, B., Choi, I. (2022). Strength of Attentional Modulation on Cortical Auditory Evoked Responses Correlates with Speech-in-Noise Performance in Bimodal Cochlear Implant Users. *Trends in Hearing*. 26, 23312165221141143.
4. * Shim, H., Kim, S., Hong, J., Na, Y., Woo, J., Hansen, M., Gantz, B., Choi, I. (2022). Differences in neural encoding of speech in noise between cochlear implant users with and without preserved acoustic hearing. *Hearing Research*. 108649.
5. ** Thi, T.-L., Na, Y., Choi, I., Woo, J. (2022). Revealing Differential Importance of Word Category in Spoken Sentence Comprehension using Phoneme-related Representation. *Journal of Integrative Neuroscience*. 21 (1), 29.
6. * Kim, S., Wu, Y.-H., Bharadwaj, H., 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.
7. ** Geller, J., Holmes, A., Schwalje, A., Berger, J., Gander, P., Choi, I., McMurray, B. (2021). Validation of the Iowa Test of Consonant Perception. *The Journal of the Acoustical Society of America* 150 (3), 2131-2153, <https://doi.org/10.1121/10.0006246>
8. * Kim, S., Emory, C., Choi, I. (2021). Neurofeedback training of auditory selective attention enhances speech-in-noise perception. *Frontiers in Human Neuroscience*, 15, 337. <https://doi.org/10.3389/fnhum.2021.676992>
9. * Kim, S., Schwalje, A., Liu, A., Gander, P., McMurray, B., Griffiths, T., 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>
10. *** Yang, H., Won, J. H., Choi, I., Woo, J. (2020). A computational study to model the effect of electrode-to-auditory nerve fiber distance on spectral resolution in cochlear implant. *PLoS one*, 15(8), e0236784. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0236784>
11. * 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://www.ncbi.nlm.nih.gov/pmc/articles/PMC7085334/>
12. *** Deng, Y., Choi, I., Shinn-Cunningham, B. G. (2020). Topographic specificity of alpha power during auditory spatial attention. *NeuroImage*, 207, 116360. <https://www.sciencedirect.com/science/article/pii/S1053811919309516>
13. * Choi, I., Kim, S., Schwalje, A. (2020). Cortical dynamics of speech-in-noise understanding. *Acoustical Science and Technology*, 41(1), 400-403. https://www.jstage.jst.go.jp/article/ast/41/1/41_E19255/article/-char/en
14. ** Deng, Y., Reinhart, R., Choi, I., Shinn-Cunningham, B. G. (2019). Causal links between parietal alpha activity and spatial auditory attention. *eLife*, 8, e51184. <https://elifesciences.org/articles/51184>
15. *** Deng, Y., Choi, I., Shinn-Cunningham, B., Baumgartner, R. (2019). Impoverished auditory cues limit

- engagement of brain networks controlling spatial selective attention. *NeuroImage*, 202, 116151. <https://www.sciencedirect.com/science/article/abs/pii/S1053811919307426>
16. **** Bharadwaj, H., Mai, A. R., Simpson, J. M., Choi, I., Heinz, M. G., Shinn-Cunningham, B. G. (2019). Non-Invasive Assays of Cochlear Synaptopathy -- Candidates and Considerations. *Neuroscience*, 407, 53-66. <https://www.sciencedirect.com/science/article/abs/pii/S0306452219301423>
 17. * Na, Y., Choi, I., Jang, D. P., Kang, J. K., Woo, J. (2019). Semantic-hierarchical model improves classification of spoken-word evoked electrocorticography. *Journal of Neuroscience Methods*, 311, 253-258. <https://www.sciencedirect.com/science/article/abs/pii/S0165027018303480>
 18. * Bonnard, D., Schwalje, A., Gantz, B., Choi, I. (2018). Electric and acoustic harmonic integration predicts speech-in-noise performance in hybrid cochlear implant users. *Hearing Research*, 367, 223-230. <https://www.sciencedirect.com/science/article/abs/pii/S0378595518300959>
 19. ** Pak, J., Choi, I., Jin, Y. G., Shin, J. W. (2017). Multichannel speech reinforcement based on binaural unmasking. *Signal Processing*, 139, 165-172. <https://www.sciencedirect.com/science/article/pii/S0165168417301615>
 20. *** Yang, H., An, S., Jeong, J., Choi, I., Woo, J. (2016). Automatic Directional-gain Control for Binaural Hearing Aids using Geomagnetic Sensors. *Journal of Biomedical Engineering Research*, 37(6), 209-214. <https://www.koreascience.or.kr/article/JAKO201608967046864.page>
 21. *** Kim, C. S., Kim, S. Y., Choi, H., Koo, J.-W., Yoo, S.-Y., An, G. S., Lee, K., Choi, I., Song, J.-J. (2016). Transmastoid reshaping of the sigmoid sinus: preliminary study of a novel surgical method to quiet pulsatile tinnitus of an unrecognized vascular origin. *Journal of Neurosurgery*, 125(2), 441-449. <https://thejns.org/view/journals/j-neurosurg/125/2/article-p441.xml>
 22. *** Song, J.-J., An, G. S., Choi, I., Ridder, D. D., Kim, S. Y., Choi, H. S., Park, J. H., Choi, B. Y., Koo, J.-W., Lee, K. (2016). Objectification and differential diagnosis of vascular pulsatile tinnitus by transcanal sound recording and spectrotemporal analysis: A preliminary study. *Otology & Neurotology*, 37(6). https://journals.lww.com/otology-neurotology/Abstract/2016/07000/Objectification_and_Differential_Diagnosis_of.I.aspx
 23. *** Kim, S. H., An, G. S., Choi, I., Koo, J.-W., Lee, K., Song, J.-J. (2016). Pre-treatment objective diagnosis and post-treatment outcome evaluation in patients with vascular pulsatile tinnitus using transcanal recording and spectro-temporal analysis. *PLoS One*, 11(6), e0157722. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0157722>
 24. Choi, I. (2016). Recent Studies on Supra-Threshold Auditory Processing Deficits. *Audiology and Speech Research*, 12(Suppl 1), S21-S23. <https://www.e-asr.org/journal/view.php?number=290>
 25. * Choi, I., Bharadwaj, H., Bressler, S., Loui, P., Lee, K., Shinn-Cunningham, B. G. (2014). Automatic processing of abstract musical tonality. *Frontiers in Human Neuroscience*, 8, 988. <https://www.frontiersin.org/articles/10.3389/fnhum.2014.00988/full>
 26. * Choi, I., Wang, L., Bharadwaj, H., Shinn-Cunningham, B. G. (2014). Individual differences in attentional modulation of cortical responses correlate with selective attention performance. *Hearing Research*, 314, 10-19. <https://www.sciencedirect.com/science/article/abs/pii/S0378595514000744>
 27. * Seo, J. H., Chon, S. B., Sung, K. M., Choi, I. (2013). Perceptual Objective Quality Evaluation Method for High Quality Multichannel Audio Codecs. *Journal of the Audio Engineering Society*, 61(7/8), 535-545. <https://www.aes.org/e-lib/browse.cfm?elib=16869>
 28. * Choi, I., Rajaram, S., Varghese, L. A., Shinn-Cunningham, B. G. (2013). Quantifying attentional modulation of auditory-evoked cortical responses from single-trial electroencephalography. *Frontiers in Human Neuroscience*, 7. <https://www.frontiersin.org/articles/10.3389/fnhum.2013.00115/full>
 29. *** Seo, J.-H., Choi, I., Chon, S. B., Sung, K.-M. (2011). An Improved Method for Objective Quality Assessment of Multichannel Audio Codecs. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, 94(8), 1747-1752. https://www.jstage.jst.go.jp/article/transfun/E94.A/8/E94.A_8_1747/article
 30. * Choi, I., Shinn-Cunningham, B. G., Chon, S. B., Sung, K.-M. (2008). Objective measurement of perceived auditory quality in multichannel audio compression coding systems. *Journal of the Audio Engineering Society*, 56(1/2), 3-17. <https://www.aes.org/e-lib/browse.cfm?elib=14371>
 31. *** Chon, S. B., Choi, I. Y., Lee, M.-G., Sung, K.-M. (2007). Objectively Quantified Consonance of Complex Sounds. *Journal of the Acoustical Society of Korea*, 26(7), 323-327. http://ocean.kisti.re.kr/IS_mvpopo001P.do?method=multMain&poid=ask&free
 32. *** Chon, S. B., Choi, I. Y., Seo, J., K.-M. (2005). Variable Bit Quantization for Virtual Source Location Information in Spatial Audio Coding. *Lecture Notes in Computer Science*, 3767, 709-719.

https://link.springer.com/chapter/10.1007/11581772_62

Books

1. * Choi, I., Choi, N. (2011). *Korean translation of "An Introduction to the Psychology of Hearing," Fifth Edition, by Brian C. J. Moore.* Seoul: Hakjisa Publisher Company.
http://www.hakjisa.co.kr/mobile/subpage.html?page=book_book_info&bidx=2090

Abstracts

1. * Howerton, K., Deng, Y., Shinn-Cunningham, B., Choi, I. (2021). *Feature dependence of neural mechanisms for divided auditory attention.* The Journal of the Acoustical Society of America 150 (4), A144-A144.
2. * Smith, F., McMurray, B., Litovsky, R., Choi, I. (2021). *Neural correlates of bilateral summation between natural and vocoded speech.* The Journal of the Acoustical Society of America 150 (4), A143-A144.
3. * Choi, I., Kim, S., Schwalje, A., Woo, J. (2019). *Cortical dynamics of word-in-noise recognition* (vol. 146, pp. 3048). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.5137565>
4. * Kim, S., Choi, I., Wu, Y.-H. (2019). *Effect of noise reduction on cortical speech processing in hearing aid users* (vol. 145, pp. 1717). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.5101299>
5. * Choi, I., Emory, C., Kim, S. (2018). *Neurofeedback training of auditory selective attention enhances speech-in-noise understanding* (vol. 143, pp. 1962). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.5036451>
6. * Choi, I., Kim, S., Gander, P. (2016). *Auditory selective attention in cochlear implant users* (vol. 140, pp. 3046). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.4969462>
7. *** Bharadwaj, H., Choi, I., Shinn-Cunningham, B. (2016). *Cortical oscillatory signatures of active listening complement brainstem coding measures in predicting listening performance* (vol. 139, pp. 1989). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.4949814>
8. ** Shinn-Cunningham, B., Ruggles, D., Choi, I., Bharadwaj, H., Mehraei, G., Dai, L. (2016). *How individual differences in sensory coding and attentional control impact understanding speech in noise* (vol. 139, pp. 2044). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.4950045>
9. * Deng, Y., Goldberg, H., Shinn-Cunningham, B., Choi, I. (2015). *Cortical dynamics of spatial and non-spatial auditory selective attention* (vol. 138, pp. 1832). The Journal of the Acoustical Society of America. <https://asa.scitation.org/doi/abs/10.1121/1.4933826>
10. * Goldberg, H., Choi, I., Varghese, L., Bharadwaj, H., Shinn-Cunningham, B. (2014). *Auditory attention in a dynamic scene: Behavioral and electrophysiological correlates* (vol. 135, pp. 2415). The Journal of the Acoustical Society of America. <https://asa.scitation.org/doi/abs/10.1121/1.4878011>
11. *** Bressler, S., Choi, I., Bharadwaj, H., Goldberg, H., Shinn-Cunningham, B. (2014). *Behavioral and neural measures of auditory selective attention in blast-exposed veterans with traumatic brain injury* (vol. 135, pp. 2415). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.4878012>
12. ** Shinn-Cunningham, B., Bharadwaj, H., Choi, I., Goldberg, H., Masud, S., Mehraei, G. (2014). *Quantifying supra-threshold sensory deficits in listeners with normal hearing thresholds* (vol. 136, pp. 2258). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.4900154>
13. * Choi, I., Bressler, S., Shinn-Cunningham, B. (2013). *Measuring subcortical and cortical neural activities for music perception: A multilevel electroencephalography study* (vol. 133, pp. 3430). The Journal of the Acoustical Society of America. <https://asa.scitation.org/doi/abs/10.1121/1.4806042>
14. Choi, I., Bharadwaj, H., Shinn-Cunningham, B. (2012). *Attentional modulation of EEG signals* (vol. 131, pp. 3513). The Journal of the Acoustical Society of America.
<https://asa.scitation.org/doi/abs/10.1121/1.4709282>
15. * Choi, I., Seo, J.-H., Sung, K.-M. (2008). *Saliency of spatial attributes on quality evaluation of multichannel audio processing devices* (vol. 123, pp. 3862). The Journal of the Acoustical Society of

America. <https://asa.scitation.org/doi/abs/10.1121/1.2935722>

Conference Proceeding

1. *** Na, Y., Kim, S., Choi, I., Woo, J. (2018). *Analysis of continuous speech-evoked electroencephalography for evaluating speech intelligibility* (vol. 2018 IEIE Summer Conference, pp. 1537-1538). The Institute of Electronics and Information Engineers. <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE07516106#>
2. Choi, I., Bressler, S., Bharadwaj, H., Shinn-Cunningham, B. G. (2013). *Subcortical and cortical neural correlates of individual differences in temporal auditory acuity* (1st ed., vol. 19, pp. 050125). Proceedings of Meetings on Acoustics. <https://asa.scitation.org/doi/abs/10.1121/1.4800675>
3. * Choi, I. Y., Chon, S. B., Shinn-Cunningham, B. G., Sung, K.-M. (2007). *Prediction of Perceived Quality in Multi-Channel Audio Compression Coding Systems*. Audio Engineering Society Conference: 30th International Conference: Intelligent Audio Environments. <https://www.aes.org/e-lib/browse.cfm?elib=13940>
4. * Kim, S.-U., Choi, I., Chon, S.-B., Lee, M.-g., Sung, K.-M. (2006). *Sound quality assessment system for the vehicle audio signals* (vol. 2006 IEIE Summer Conference, pp. 657-658). The Institute of Electronics and Information Engineers. <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE01743430>
5. *** Chon, S. B., Choi, I., Sung, K.-M. (2006). *Sound Quality Enhancement in MPEG Surround by Using ILD Distortion* (vol. 2006 IEIE Summer Conference). The Institute of Electronics and Information Engineers. <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE01743128>
6. * Choi, I., Yoon, S., Kim, S. W., Sung, K.-M. (2002). *Influence of inharmonicity on the tone of a piano* (1st ed., vol. 21, pp. 545-548). Proceedings of the Acoustical Society of Korea Conference. http://ocean.kisti.re.kr/IS_mvpopo001P.do?method=multMain&poid=ask&free
7. ** Yoon, S.-Y., Kim, Y. J., Choi, I., Sung, K.-M. (2001). *The effect of bridge on vibrational characteristics of piano soundboard* (2nd ed., vol. 20, pp. 329-332). Proceedings of the Acoustical Society of Korea Conference. http://ocean.kisti.re.kr/IS_mvpopo001P.do?method=multMain&poid=ask&free

Publications In Progress

Journal Article

- | | |
|------|---|
| 2023 | Differences in cortical processing during spatial and non-spatial divided auditory attention (in preparation) |
| 2023 | Cochlear implant-induced changes of speech-in-noise processes in single-sided deafness (in preparation) |
| 2023 | Neural tracking of phoneme onsets, not intensity envelopes, in continuous speech reflects speech intelligibility (in preparation) |
| 2023 | Spectral grouping ability predicts speech-in-noise performance in cochlear implants (in revision) |

Inventions and Patents

1. Choi, Inyong, Oh, Sang-hoon, Bang, Kyoung-ho. US 20130106997 A1, "Apparatus and method for providing guiding service in portable terminal"
2. Choi, Inyong, Kim, Jae-hyen, Oh, Kyung-seok, Bang, Kyoung-ho. US 20130106997 A1, "pparatus and method for generating three-dimension data in portable terminal"
3. Choi, Inyong, Won, Joon Ho, Choi, Chul Min, Lee, Nam Il, Oh, Sang Hoon. US 201202267.06 A1, "System, apparatus and method for sorting music files based on moods"
4. Choi, Inyong, Jung, Seok-Young, Lee, Nam-Il, Oh, Sang Hoon. US 20120011470 A1, "Method and apparatus for managing menu item in a portable terminal"

Grants and Contracts

Funded

Sep 2023 - Aug 2026 *Assessing the causal impact of cortical dysfunctions and interventions on speech-in-noise processing*

DoD-HRRP Focused Applied Research Grant

Funded by Department of Defense. Award amount: (\$1,400,986.00) Percent effort: 8.33. Investigator/s Inyong Choi (Principal Investigator).

- Aug 2023 - July 2027 *Smart and Connected Health: Shallow and Deep Personalization for Hearing Aids*
Funded by National Science Foundation. Award amount: (\$1,199,085.00) Percent effort: 7.5. Investigator/s Octav Chipara (Principal Investigator), Bijaya Adhikari, Yu-Hsiang Wu, and Inyong Choi (Co-PI).
- May 2023 - Apr 2028 *Iowa Cochlear Implant Clinical Research Center VIII Project 2: Central Auditory Integration and Plasticity P50 DC000242*
Funded by NIH-NIDCD. Percent effort: 10. Investigator/s Bruce Gantz (Principal Investigator), , Inyong Choi (Principal Investigator), Timothy Griffiths (Principal Investigator).
- May 2023 - Apr 2028 *Iowa Cochlear Implant Clinical Research Center VIII Project 3: Cognitive Mechanisms of Language Processing P50 DC000242*
Funded by NIH-NIDCD. Percent effort: 3. Investigator/s Bob McMurray (Principal Investigator), Inyong Choi (Co-Investigator).
- July 2022 - Mar 2023 *Efficacy validation of hearing aid function in wearable augmented-reality devices*
Funded by Samsung Electronics, Co., Ltd. Award amount: (\$75,270.1) Percent effort: 7.2. Investigator/s Inyong Choi (Principal Investigator).
- Dec 2020 - Nov 2025 *Human Auditory Cortex Physiology R01 DC004290*
Funded by NIH-NIDCD. Percent effort: 15. Investigator/s Matthew Howard (Principal Investigator), Inyong Choi (Co-Investigator).
- Dec 2017 - Nov 2023 *Iowa Cochlear Implant Clinical Research Center VII Project 3: Central Auditory Integration and Plasticity P50 DC000242*
Funded by NIH-NIDCD. Percent effort: 15. Investigator/s Bruce Gantz (Principal Investigator), Timothy Griffiths (Principal Investigator), Inyong Choi (Co-Investigator).
- Dec 2017 - Nov 2023 *Iowa Cochlear Implant Clinical Research Center VII Project 4: Cognitive Mechanisms of Language Processing P50 DC000242*
Funded by NIH-NIDCD. Percent effort: 5. Investigator/s Bob McMurray (Principal Investigator), Inyong Choi (Co-Investigator).
- Sep 2019 - Aug 2023 *Identifying the Sources of Degraded Speech-in-Noise Understanding and Individualized Therapeutic Options*
DoD-HRRP Focused Applied Research Grant W81XWH-19-1-0637
Funded by Department of Defense. Award amount: (\$1,362,586.00) Percent effort: 20. Investigator/s Inyong Choi (Principal Investigator).
- Jul 2019 - Mar 2021 *Post-implantation rehabilitation for cochlear implant recipients*
AOS Research Grant
Funded by American Otological Society. Award amount: (\$55,000.00) Percent effort: 10. Investigator/s Inyong Choi (Principal Investigator).
- Jul 2017 - Mar 2019 *Neural correlates of selective listening deficits in multi-talker environment*
Emerging Research Grant
Funded by Hearing Health Foundation. Award amount: (\$30,000.00). Investigator/s Inyong Choi (Principal Investigator).
- May 2017 - Apr 2018 *Computational models of perceived speech quality in mobile devices*
Funded by Samsung Electronics, Co., Ltd. Award amount: (\$76,240.85) Percent effort: 25. Investigator/s Inyong Choi (Principal Investigator).
- Dec 2016 - Nov 2017 *Neural correlates of speech understanding and listening effort: simultaneous electroencephalography (EEG) and electrocorticography (ECoG) in normal hearing subjects F75_Liu*
Funded by Action on Hearing Loss. Award amount: (\$6,178.00) Percent effort: 5. Investigator/s Inyong Choi (Co-Principal).
- Dec 2015 - May 2016 *Computational models of audio quality perception for small mobile devices F588600 (UI ref #)*
Funded by Samsung Electronics, Co., LTD. Award amount: (\$37,750.00) Percent effort: 25. Investigator/s Inyong Choi (Principal Investigator).

- Nov 2013 - Dec 2014 *Revealing individual differences in central auditory processing using functional brain-imaging NRF-2013R1A6A3A03062982*
Funded by National Research Foundation of Korea. Award amount: (\$31,000.00). Investigator/s Inyong Choi (Principal Investigator).
- May 2014 - Aug 2014 *Cognitive contributions to the individual differences in selective attention performance: a pilot magnetoencephalographic study AHL Flexi Grant F45*
Funded by Action on Hearing Loss. Award amount: (\$10,000.00). Investigator/s Inyong Choi (Principal Investigator).
- Funding recommended: Under negotiation**
- Jul 2023 - Jun 2027 *Shallow and Deep Personalization for Hearing Aids*
NSF Smart & Connected Health grant
Funded by National Science Foundation. Percent effort: 10. Investigator/s Octav Chipara (Principal Investigator), Yu-Hsiang Wu (Principal Investigator), Inyong Choi (Principal Investigator).
- Not Funded**
- Jul 2022 - Jun 2025 *Collaborative Research: Investigating individual differences in auditory spatial attention*
NSF Perception, Action, & Cognition grant
Funded by National Science Foundation. Percent effort: 10. Investigator/s Sungyoung Kim (Principal Investigator), Inyong Choi (Principal Investigator).
- Sep 2021 - Aug 2023 *Assessing the Impact of Acute Brain Injury on Speech-in-Noise Processing*
DoD-HRRP Focused Research Grant
Funded by Department of Defense. Percent effort: 15. Investigator/s Inyong Choi (Principal Investigator), Aaron Boes (Co-Investigator), Bob McMurray (Co-Investigator), Matthew Howard (Co-Investigator).
- Sep 2020 - Aug 2025 *Auditory Integration and Processing in Single-Sided Deafness with Cochlear Implants R01*
Funded by NIH-NIDCD. Percent effort: 15. Investigator/s Inyong Choi (Multi-PI), Bob McMurray (Multi-PI), Ruth Litovsky (Multi-PI).
- Jul 2020 - Jun 2025 *Individual Differences in Auditory and Language Brain Networks in Children who are Hard of Hearing: Associations with Cumulative Auditory Experience R01*
Funded by NIH-NIDCD. Percent effort: 20. Investigator/s J. Bruce Tomblin (Multi-PI), Anthony Dick (Multi-PI), Inyong Choi (Co-Investigator).
- Oct 2016 - Oct 2021 *Cochlear Implants in Listeners with Single-Sided Deafness 1R01DC015762-01*
Funded by NIH-NIDCD. Percent effort: 10. Investigator/s Camille Dunn (Principal Investigator), Inyong Choi (Multi-PI).
- Sep 2018 - Aug 2021 *Understanding variability in speech-in-noise understanding R21*
Funded by NIH-NIDCD. Percent effort: 25. Investigator/s Inyong Choi (Principal Investigator), Shawn Goodman (Co-Investigator).
- Jan 2018 - Dec 2019 *Investigating peripheral and central neural markers of degraded speech understanding in social settings*
Funded by American Speech and Hearing Foundation. Percent effort: 22.22. Investigator/s Inyong Choi (Principal Investigator).
- Jan 2017 - Oct 2017 *Consonance and Dissonance Perception in the Cochlear Implant User, Pilot Study*
Funded by Action on Hearing Loss. Investigator/s Adam Schwalje (Co-Principal), Inyong Choi (Co-Principal).
- Jul 2016 - Jun 2017 *Neural correlates of selective attention deficits in normal hearing and single-sided deafness*
Funded by Hearing Health Foundation. Percent effort: 10. Investigator/s Inyong Choi (Principal Investigator).
- Jan 2017 *Collaboration on predicting cochlear implantation outcomes by the use of sensory-coding computational models and cortical EEG measures*
Funded by Action on Hearing Loss. Investigator/s Jihwan Woo (Co-Principal), Inyong Choi (Co-Principal).

Invited Lectures and Conference Presentations

Department - Invited Lecture

- 2021 *To be a better listener at cocktail parties*, Seoul National University, Seoul, South Korea Presenters/Authors: Choi, Inyong
- 2021 *Cortical activities predict speech-in-noise performance in cochlear implant users*, University of Ulsan, Ulsan, South Korea Presenters/Authors: Choi, Inyong
- 2019 Iowa Neuroscience Institute Seminar, *Neural dynamics of cocktail party listening*, Iowa City, Iowa, United States Presenters/Authors: Choi, Inyong
- 2018 *Causal relationship between selective attention and speech unmasking during word-in-noise recognition*, Purdue University, West Lafayette, Indiana, United States Presenters/Authors: Choi, Inyong
- 2018 *Hearing Science and Engineering*, University of Ulsan, Ulsan, South Korea Presenters/Authors: Choi, Inyong
- 2014 Communication Sciences Research Center, *Sensory and cognitive neural networks of auditory attention*, Cincinnati Children's Hospital, Cincinnati, Ohio, United States
- 2013 Eaton-Peabody Laboratories, *The brain dynamics of auditory attention*, Massachusetts Eye and Ear Infirmary, Boston, Massachusetts, United States

International - Conference Presentation

- 2021 Association for Research in Otolaryngology (ARO) 44th Annual MidWinter Meeting, *Neural Correlates of Speech-In-Noise Variance in Cochlear Implant Users*, Online, Presenters/Authors: Joel Berger, Phillip Gander, Subong Kim, Adam Schwalje, Jihwan Woo, Young-min Na, Ann Holmes, Jean Hong, Camille Dunn, Marlan Hansen, Bruce Gantz, Bob McMurray, Timothy Griffiths, Inyong Choi
- 2021 Association for Research in Otolaryngology (ARO) 44th Annual MidWinter Meeting, *Audio-Motor Closed-Loop Training of Pitch Fusion for Cochlear Implant Recipients With Acoustic Residual Hearing: Theoretical Validity and Efficacy*, Online, Presenters/Authors: Adam Schwalje, Sungyoung Kim, Ben Jordan, Ellen Scarborough, Eun Kyung Jeon, Inyong Choi
- 2021 Association for Research in Otolaryngology (ARO) 44th Annual MidWinter Meeting, *Modality-Specific Association Between Working Memory and Speech Recognition in Older Listeners Under Adverse Listening Conditions*, Online, Presenters/Authors: Subong Kim, Inyong Choi, Adam Schwalje, KyooSang Kim, Jae Hee Lee
- 2021 Association for Research in Otolaryngology (ARO) 44th Annual MidWinter Meeting, *Evidence for Neuroplasticity in EEG Responses to Speech-In-Noise Within the First Year After Cochlear Implant Activation*, Online, Presenters/Authors: Phillip Gander, Joel Berger, Subong Kim, Adam Schwalje, Jihwan Woo, Young-min Na, Ann Holmes, Jean Hong, Camille Dunn, Marlan Hansen, Bruce Gantz, Bob McMurray, Timothy Griffiths, Inyong Choi
- 2021 Association for Research in Otolaryngology (ARO) 44th Annual MidWinter Meeting, *Difference Analysis of Oscillatory Response to Continuous Speech Stimuli Between Native and Non-Native Speakers*, Online, Presenters/Authors: Luong Do Anh Quan, Youngmin Na, Inyong Choi, Jihwan Woo
- 2021 Association for Research in Otolaryngology (ARO) 44th Annual MidWinter Meeting, *Impact of Different Components on Spoken Sentence Comprehension Revealed by Speech- Evoked Electroencephalography*, Online, Presenters/Authors: Trang Le Thi, Youngmin Na, Inyong Choi, Jihwan Woo
- 2020 Association for Research in Otolaryngology (ARO) 43rd Annual MidWinter Meeting, *Acoustically Evoked Compound Action Potentials (CAPs) Recorded from Electro-Acoustic Stimulation (EAS) Cochlear Implant Users: A Preliminary Study*, San Jose, California, United States Presenters/Authors: Kim, Jeong-Seo, Tejani, Viral, Brown, Carolyn, Abbas, Paul, Choi, Inyong
- 2020 Association for Research in Otolaryngology (ARO) 43rd Annual MidWinter Meeting, *Assessing the Reliability and Validity of the Iowa Test of Consonant Confusion*, San Jose, California, United States Presenters/Authors: Holmes, Ann, Geller, Jason,

- Schwalje, Adam, Choi, Inyong, McMurray, Bob
- 2020 Association for Research in Otolaryngology (ARO) 43rd Annual MidWinter Meeting, *Electroencephalography-based Optimization of Noise Reduction in Hearing Aids*, San Jose, California, United States Presenters/Authors: Kim, Subong, Wu, Yu-Hsiang, Choi, Inyong
- 2020 Association for Research in Otolaryngology (ARO) 43rd Annual MidWinter Meeting, *The Effect of Selective Attention Training on Effort during Speech-in-noise Perception*, San Jose, California, United States Presenters/Authors: Sarow, Amy, Kim, Subong, Geller, Jason, Choi, Inyong
- 2019 Association for Research in Otolaryngology (ARO) 42nd Annual MidWinter Meeting, *Duplex pitch perception in Hybrid cochlear implants*, Baltimore, Maryland, United States Presenters/Authors: Choi, Inyong, Bonnard, Damien, Schwalje, Adam
- 2019 Association for Research in Otolaryngology (ARO) 42nd Annual MidWinter Meeting, *Cochlear implant-induced changes of speech-in-noise processes in single-sided deafness*, Baltimore, Maryland, United States Presenters/Authors: Kim, Kyung-Joong, Giuliani, Nicholas, Litovsky, Ruth, Dunn, Camille, Gantz, Bruce, Choi, Inyong Student Presenters/Authors: Kim, Subong, Emory, Caroline
- 2019 Association for Research in Otolaryngology (ARO) 42nd Annual MidWinter Meeting, *Selective Attention Training Enhances Speech-in-Noise Recognition*, Baltimore, Maryland, United States Presenters/Authors: Kim, Subong, Emory, Caroline, Schwalje, Adam, Choi, Inyong
- 2018 Association for Research in Otolaryngology (ARO) 41st Annual MidWinter Meeting, *Behavioural evidence for a relationship between auditory object grouping and speech-in-noise processing*, San Diego, California, United States Peer-Reviewed/Refereed Presenters/Authors: Gander, Phillip, Choi, Inyong, McMurray, Bob, Griffiths, Timothy
- 2018 Association for Research in Otolaryngology (ARO) 41st Annual MidWinter Meeting, *O-15 Water PET study of speech in noise processing in cochlear implant patients*, San Diego, California, United States Presenters/Authors: Gander, Phillip, Ponto, Laura, Choi, Inyong, McMurray, Bob, Griffiths, Timothy
- 2018 Association for Research in Otolaryngology (ARO) 41st Annual MidWinter Meeting, *Cortical evoked responses reflect cochlear implant-induced improvement of speech-in-noise understanding in single-sided deafness*, San Diego, California, United States Presenters/Authors: Choi, Inyong, Kim, Subong, Schwalje, Adam, Dunn, Camille, Gantz, Bruce
- 2018 Association for Research in Otolaryngology (ARO) 41st Annual MidWinter Meeting, *Electric and Acoustic Pitch Fusion Ability Predicts Speech-in-Noise Performance in Hybrid Cochlear Implant Users*, San Diego, California, United States Presenters/Authors: Schwalje, Adam, Bonnard, Damien, Gantz, Bruce, Choi, Inyong
- 2018 Association for Research in Otolaryngology (ARO) 41st Annual MidWinter Meeting, *Frontal and auditory cortex interplay predicts variances of speech-in-noise understanding in cochlear implant users*, San Diego, California, United States Presenters/Authors: Choi, Inyong, Kim, Subong, Schwalje, Adam, Na, Youngmin, Woo, Jihwan, Gander, Phillip, Griffiths, Timothy
- 2018 Association for Research in Otolaryngology (ARO) 41st Annual MidWinter Meeting, *Natural Speech-Evoked Frontal Cortex Response Reflects Speech-In-Noise Understanding Difficulty*, San Diego, California, United States Presenters/Authors: Kim, Subong, Schwalje, Adam, Liu, Andrew, Choi, Inyong
- 2017 Neuroscience 2017, *Cortical responses and functional connectivity derived from electrocorticography (ECoG) during speech in noise task*, Society for Neuroscience, Washington, District of Columbia, United States Presenters/Authors: Liu, Andrew, Howard, Matthew, Griffiths, Timothy, Choi, Inyong
- 2017 Neuroscience 2017, *Differential phoneme confusion patterns linked with performance in a speech-in-noise task*, Society for Neuroscience, Washington, District of Columbia, United States Presenters/Authors: Schwalje, Adam, Kim, Subong, Choi, Inyong
- 2017 Neuroscience 2017, *Machine-learning classification of speech-evoked*

- electroencephalographic signals reveals speech intelligibility*, Society for Neuroscience, Washington, District of Columbia, United States Presenters/Authors: Na, Youngmin, Kim, Subong, Woo, Jihwan, Choi, Inyong
- 2017 Neuroscience 2017, *Neural substrates of behavioral performance in a speech-in-noise task*, Society for Neuroscience, Washington, District of Columbia, United States Peer-Reviewed/Refereed Presenters/Authors: Choi, Inyong, Schwalje, Adam Student Presenters/Authors: Kim, Subong
- 2017 Neuroscience 2017, *Neurofeedback training of selective attention and speech-in-noise recognition*, Society for Neuroscience, Washington, District of Columbia, United States Peer-Reviewed/Refereed Presenters/Authors: Schwalje, Adam, Choi, Inyong Student Presenters/Authors: Kim, Subong, Emory, Caroline
- 2017 American Auditory Society Annual Meeting, *Contribution of selective attention ability to the speech-in-noise understanding performance*, Scottsdale, Arizona, United States Presenters/Authors: Kim, Sieon, Kim, Subong, Lancing, Courtney, Choi, Inyong
- 2017 Association for Research in Otolaryngology (ARO) 40th Annual MidWinter Meeting, *Alpha Oscillatory Activities During Auditory Spatial Attention: Topography Specificity and Inter-/intra- individual Differences in Peak Frequency*, Baltimore, Maryland, United States Presenters/Authors: Deng, Yuqi, Choi, Inyong, Shinn-Cunningham, Barbara
- 2017 Association for Research in Otolaryngology (ARO) 40th Annual MidWinter Meeting, *Figure-ground Analysis Based on the Sequential Grouping of Spectral Patterns*, Baltimore, Maryland, United States Presenters/Authors: Griffiths, Timothy, Chait, Maria, Choi, Inyong, Dheerendra, Pradeep, Gander, Phillip, Kumar, Sukhbinder, Teki, Sundeep
- 2017 Association for Research in Otolaryngology (ARO) 40th Annual MidWinter Meeting, *Frontal P2 Cortical Evoked Potentials in Response to Ongoing Speech*, Baltimore, Maryland, United States Presenters/Authors: Liu, Andrew, Hubbard, April, Kim, Subong, Choi, Inyong
- 2017 Association for Research in Otolaryngology (ARO) 40th Annual MidWinter Meeting, *Neural Correlates of Variance in Speech-in-noise Understanding Performance*, Baltimore, Maryland, United States Presenters/Authors: Kim, Subong, Griffiths, Timothy, Gander, Phillip, Choi, Inyong
- 2017 Association for Research in Otolaryngology (ARO) 40th Annual MidWinter Meeting, *Perception of Musical Consonance and Dissonance by Cochlear Implant Users*, Baltimore, Maryland, United States Presenters/Authors: Schwalje, Adam, Gomez, Lex, Choi, Inyong
- 2017 Association for Research in Otolaryngology (ARO) 40th Annual MidWinter Meeting, *Selective attention ability explains variance of speech-in-noise understanding performance in cochlear implant users*, Baltimore, Maryland, United States Presenters/Authors: Choi, Inyong, Emory, Caroline, Kim, Subong, Gander, Phillip
- 2016 Association for Research in Otolaryngology (ARO) 39th Annual MidWinter Meeting, *Modulation of Cortical Responses by Spatial and Non-spatial Auditory Selective Attention*, San Diego, California, United States Presenters/Authors: Deng, Yuqi, Choi, Inyong, Bharadwaj, Hari, Goldberg, Hannah, Shinn-Cunningham, Barbara
- 2016 Association for Research in Otolaryngology (ARO) 39th Annual MidWinter Meeting, *Real-time decoding of auditory selective attention and neurofeedback training using EEG*, San Diego, California, United States Presenters/Authors: Choi, Inyong, Dunn, Camille, Gantz, Bruce, Shinn-Cunningham, Barbara
- 2015 Association for Research in Otolaryngology (ARO) 38th Annual MidWinter Meeting, *Attentional Modulation of Cortical Networks in a Dynamic Auditory Scene*, Baltimore, Maryland, United States Presenters/Authors: Choi, Inyong, Goldberg, Hannah, Bharadwaj, Hari, Shinn-Cunningham, Barbara
- 2014 Association for Research in Otolaryngology (ARO) 37th Annual MidWinter Meeting, *Attentional Modulation Strength of Auditory- Evoked Cortical Response Predicts Selective Attention Performance*, San Diego, California, United States Presenters/Authors: Choi, Inyong, Wang, Le, Bharadwaj, Hari, Shinn-Cunningham,

- Barbara
- 2013 Association for Research in Otolaryngology (ARO) 36th Annual MidWinter Meeting, *A Modeled Auditory Evoked Potential Predicts Attentional Modulation of Averaged and Single Trial EEG Signals*, Baltimore, Maryland, United States Presenters/Authors: Choi, Inyong, Shinn-Cunningham, Barbara
- 2013 Association for Research in Otolaryngology (ARO) 36th Annual MidWinter Meeting, *Decoding Auditory Attention (In Real Time) with EEG*, Baltimore, Maryland, United States Presenters/Authors: Lalor, Edmund, Mesgarani, Nima, Rajaram, Siddharth, O'Donovan, Adam, Wright, James, Choi, Inyong, Brumberg, Jonathan, Ding, Nai, Lee, Adrian, Peters, Nils, Ramenahalli, Sudarshan, Pompe, Jeffrey, Shinn-Cunningham, Barbara, Slaney, Malcolm, Shamma, Shihab

International - Invited Lecture

- 2019 Research Seminar of Korean Otological Society, *Central auditory processing in listeners with electric and acoustic stimulation*, Mungyeong, South Korea Presenters/Authors: Choi, Inyong
- 2019 Korean Society for Music Perception and Cognition 62nd Seminar, *Right now, wrong then: How context alters sensation*, Seoul, South Korea Presenters/Authors: Choi, Inyong
- 2019 Cognitive neuroscience of auditory and cross-modal perception, *Adapting to simultaneous electric and acoustic stimulation for word-in-noise recognition in listeners with single-sided deafness*, EU H2020-MSCA-RISE-2015 project #691229, Košice, Slovakia Presenters/Authors: Choi, Inyong
- 2018 Universal Acoustical Communication Month 2018, *Cortical dynamics of speech-in-noise understanding*, Tohoku University, Sendai, Japan Peer-Reviewed/Refereed Presenters/Authors: Choi, Inyong, Schwalje, Adam, Kim, Subong
- 2017 Otology Research Seminar, *Psychophysical and physiological correlates of cochlear implant outcomes*, Korean Otology Society, Pyoung-chang, South Korea Presenters/Authors: Choi, Inyong
- 2017 *Central auditory functions in listeners with single-sided deafness*, Hallym Hospitals Otolaryngology, Anyang, South Korea Presenters/Authors: Choi, Inyong
- 2017 The 3rd Workshop on Cognitive Neuroscience and Auditory Perception, *Neurofeedback training of complex listening*, Slovak Government, Kosice, Slovakia Presenters/Authors: Choi, Inyong
- 2013 Gwangju Institute of Technology, *The brain dynamics of auditory attention*, Gwangju, South Korea
- 2013 Korea Advanced Institute of Science and Technology, *The brain dynamics of auditory attention*, Daejeon, South Korea
- 2013 Department of Brain and Cognitive Sciences, *The brain dynamics of auditory attention*, Seoul National University, Seoul, South Korea
- 2013 Korea Institute of Science and Technology, *The brain dynamics of auditory attention*, Seoul, South Korea
- 2013 Graduate School of Convergence Science and Technology, *The brain dynamics of auditory attention*, Seoul National University, Suwon, South Korea
- 2013 Ewha Women's University, *The brain dynamics of auditory attention*, Seoul, South Korea
- 2013 Daegu-Gyungbuk Institute of Science and Technology, *The brain dynamics of auditory attention*, Daegu, South Korea

National - Conference Presentation

- 2017 ELN 2017 Annual Meeting, *Neurofeedback training of selective attention and speech-in-noise recognition*, Engaging Learning Network, New York, New York, United States Presenters/Authors: Choi, Inyong Student Presenters/Authors: Emory, Caroline, Kim, Subong
- 2017 ELN Annual Meeting 2017, *Training on temporal modulation detection to improve discernment of musical dissonance in cochlear implantees*, Engaging Learning

- Network, New York, New York, United States Presenters/Authors: Schwalje, Adam, Choi, Inyong
- 2017 American Academy of Audiology Convention, *Relationship Between Selective Attention Performance and Mismatch Negativity* Presenters/Authors: Lancing, Courtney, Kim, Sion, Kim, Subong, Choi, Inyong

National - Invited Lecture

- 2020 Brain and Bagel: *Attention and Effort*, University of Wisconsin-Madison, Madison, Wisconsin, United States Presenters/Authors: Choi, Inyong
- 2018 Day with the Experts: Cochlear Implants, *Brain Exercises after Cochlear Implantation*, Waisman Center, University of Wisconsin-Madison, Madison, Wisconsin, United States Presenters/Authors: Choi, Inyong
- 2016 3rd Rochester Interdisciplinary Audio Engineering Symposium, *Cochlear implant users' real-world communication*, Rochester Institute of Technology, Rochester, New York, United States Presenters/Authors: Choi, Inyong
- 2014 Rochester Institute of Technology, *The brain dynamics of bottom-up and top-down auditory attention*, Rochester, New York, United States

SERVICE

Profession

- 2020 - Present Audiology and Neurotology, Reviewer, Publications
- 2020 - Present Journal of the Association for Research in Otolaryngology (JARO), Reviewer, Publications
- 2020 - Present Trends in Hearing, Reviewer, Publications
- 2020 - Present Department of Veterans Affairs, Rehabilitation Research & Development Sensory Systems and Communication Disorders Merit Review Panel, Reviewer, Grant Proposals
- 2017 - Present Ear and Hearing, Reviewer, Publications
- 2017 - Present Journal of Neuroscience Method, Reviewer, Publications
- 2017 - Present Nature Communications, Reviewer, Publications
- 2017 - Present Hearing Research, Reviewer, Publications
- 2017 - Present NeuroImage, Reviewer, Publications
- 2016 - Present eLife, Reviewer, Publications
- 2015 - Present Journal of Acoustical Society of America, Reviewer, Publications
- 2015 - Present Journal of Neurophysiology, Reviewer, Publications
- 2015 - Present Neuropsychologia, Reviewer, Publications
- 2014 - Present Journal of Neuroscience, Reviewer, Publications
- 2014 - Present Journal of Neurophysiology, Reviewer, Publications
- 2014 - Present Attention, Perception, & Psychophysics, Reviewer, Publications
- 2014 - Present Frontiers in Human Neuroscience, Reviewer, Publications
- 2014 - Present Journal of Cognitive Neuroscience, Reviewer, Publications
- 2014 - Present The Journal of Neuroscience, Reviewer, Publications
- 2013 - Present PLoS One, Reviewer, Publications
- 2013 - Present Quarterly Journal of Experimental Psychology, Reviewer, Publications
- 2006 - Present International Telecommunication Union (ITU-R) Study Group 6, Member
- 2006 - Present Korean Communication Commission, ITU-T Study Group 12, Member
- 2017 National Intitute of Health, AUD Study Section, Reviewer, Grant Proposals

Department

- 2020 - Present PhD Committee, Member
- 2020 Research Re-opening Committee, Member
- 2017 Finance Committee, Member