

**CURRICULUM VITAE
PEGGY B. NELSON**

A. IDENTIFYING INFORMATION

1. Academic Rank

Professor with Tenure, Speech-Language-Hearing Sciences

2. Education

Degree	Institution	Date Degree Granted
B.A.	Saint Olaf College Math/Psychology	1974
M.A.	Kansas State University Speech (emphasis in Audiology)	1982
Ph.D.	University of Kansas Speech-Language-Hearing Sciences and Disorders	1991

3. Positions/Employment

University of Minnesota, Twin Cities	2000 – present
Associate Dean, College of Liberal Arts	2023 - present
Director, Center for Applied and Translational Sensory Science	2015 - 2022
Interim Chair, Classical and Near Eastern Studies	2020 - 2021
Chair, Department of Speech-Language-Hearing Sciences	2008 – 2015
Professor, Department of Speech-Language-Hearing Sciences	2013 - present
Associate Professor, Department of Speech-Language-Hearing Sciences	2005 - 2013
Assistant Professor, Department of Speech-Language-Hearing Sciences	2000 - 2005
University of Maryland, Baltimore	1996 - 1999
Assistant Professor and Director of Pediatric Audiology	1996 - 1999
Gallaudet University	1992 - 1999
Adjunct Assistant Professor, Department of Audiology and Speech Pathology	1997 - 1999
Research Scientist	1992 - 1996
University of Maryland, College Park	1996 - 1997
Adjunct Assistant Professor, Dept of Speech and Hearing Sciences	1996 - 1997
University of Kansas Medical Center	1988 - 1991
Assistant Professor, Hearing and Speech Department	1991 - 1992
Instructor, Hearing and Speech Department	1988 - 1991

4. Current Membership in Professional Organizations

Minnesota Hearing Instrument Dispenser, Licensed Audiologist (2002 - 2018)
 Association for Research in Otolaryngology
 American Auditory Society (1998 – present)
 Acoustical Society of America (1991 – present)
 American Speech-Language-Hearing Association (1983 – present)

B. HONORS AND AWARDS

Honors and Awards: External Sources

President, Acoustical Society of America, 2022-23
 Vice-President, Acoustical Society of America, 2019-2021
 Erskine Fellow, Canterbury University, New Zealand, 2016
 Vice-president for Research and Scholarship, Council of Academic Programs in Communication Sciences and Disorders, 2014 - 2017
 Fellow, American Speech-Language-Hearing Association, 2010
 Fellow, Acoustical Society of America, 2005
 ASHA Leader, 2011 Editor's Award for article contributed in area of Audiology
 American Journal of Audiology, 2003 Editor's Award for the Article of Highest Merit
 American Journal of Audiology, 2002 Editor's Award for the Article of Highest Merit

Honors and Awards: Internal Sources

Scholar of the College, 2016, College of Liberal Arts
Dean's medal, 2019, College of Liberal Arts

C. RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

1. Grants and Contracts

a) External Sources (selected)

(1) Received at the University of Minnesota

Xiong, Y (PI) K99/R00 EY030145-A1 (funded Nov 2019)

Co-investigator (Nelson) \$116,000 per year. Start date: Apr 2020

“Dual sensory loss: Impact of vision and hearing impairment on spatial localization”

Principal Investigator: NIH R01 2013 – 2021 (ended July 2021)

Improving amplification outcomes in noise through self-directed hearing aid fitting

Awarded, July 2013

Investigator, National Science Foundation training grant

Graduate Training Program in Sensory Science: Optimizing the Information Available for Mind and Brain, awarded to Center for Cognitive Sciences and Center for Applied and Translational Sensory Science, \$3 million, August 2017 – 2023 (in no-cost extension year)

Co-Investigator, Project Lead (Gallaudet Univ. Primary PI)

NIDLRR: Platform for Ecological evaluation of Sensory Aids

Fall 2019 – Summer 2024 \$68,750/ year

Co-investigator: Xcel Energy Public Utilities Commission, 2014 – 2019

Title: Wind turbine generated sound: Targeted research to improve measurement, analysis and annoyance thresholds based on measured human response

PI: Jeffrey Marr, St Anthony Falls Laboratories

Project awarded Fall 2014 and begun July 2015

Co-investigator: Department of Energy DE-FOA-0001554: Wind energy 00

Eagle impact minimization technologies and field testing opportunities.

Detection and perception of sound by eagles and surrogated raptors

Award notice received Nov 29, 2016 - 2018

Co-Investigator: Andrew Oxenham, Principal Investigator

NIH R01: Spectro-temporal interactions in cochlear implant processing and perception

Awarded Spring 2013 - 2018

Principal Investigator: NIH R01 2008 - 2014

Masking release in hearing loss: Cochlear compression and effective audibility

Ended 2014

Subcontract, NIH SBIR

NVE Corporation: Advanced Electromagnetic connections to hearing aids

NIH SBIR: Head Tracking Hearing Aid for Automatic Source Switching

Advanced Medical Electronics Corporation 10/01/2013 – 12/31/2013

Principal Investigator

NIH NIDCD 5R01DC8306 Diversity Supplement

Masking release in hearing loss: Cochlear compression and effective audibility,

September 2009 – May 2011: \$115,263

2. Publications

a) Refereed Journal Articles

Johnson, S., & Nelson, P. (1991). Real ear measures of auditory brain stem response click spectra in infants and adults," *Ear and Hearing*, 12, 180-183.

Hulsing, M., Luetke-Stahlman, B., Loeb, D., Nelson, P., & Wegner, J. (1995). Analysis of successful initiations of three children with hearing loss mainstreamed in kindergarten classrooms. *Language, Speech, and Hearing Services in Schools*, 26, 45-57.

Nelson, P., Nittrouer, S., & Norton, S. (1995). 'Say-stay' identification and psychoacoustic performance of hearing-impaired listeners. *Journal of the Acoustical Society of America*, 97, 1830-8.

Nelson, P., & Dwyer-Thomas, S. (1997). Gap detection as a function of stimulus loudness for listeners with and without hearing loss. *J Speech, Language, and Hearing Research*, 40, 1387-1394.

Nelson, P., & Soli, S. (2000). Acoustical barriers to learning: Children at risk in every classroom. *Language, Speech and Hearing Services in Schools*, 31, 356-361.

Nelson, P. (2001). The changing demand for improved acoustics in our schools, *Volta Rev*, 101, 23-31.

Knecht, H., Nelson, P. Whitelaw, G., & Feth, L. (2002) Background noise levels and reverberation times in unoccupied classrooms: Predictions and measurements, *Amer Journ of Audiology*, 11, 65-71.

Nelson, P., DiGiovanni, J.J., & Schlauch, R.S. (2002). A psychoacoustic basis for spectral sharpening. *Proceedings of the International Conference on Spoken Language Processing (ICSLP)*, 417-420.

Nelson, P., Soli, S., & Seltz, A. (2002). Acoustical barriers to learning. *Acoustical Society of America* (a whitepaper publication of the Acoustical Society of America)
http://asa.aip.org/map_publications.html#6

Nelson, P., Jin, S.-H., Carney, A.E., & Nelson, D. A. (2003). Understanding speech in modulated interference: Cochlear implant users and normal-hearing listeners. *Journal of the Acoustical Society of America*, 113, 961-968.

Nelson, P. (2003). Sound in the classroom: Why children need quiet. *Journal of the American Society of Heating, Refrigeration and Air-conditioning Engineers*, 45, 22-26.

Miller-Hansen, D.R., Nelson, P., Widen, J. E., & Simon, S. D. (2003). Evaluating the benefit of speech recoding hearing aids in children. *American Journal of Audiology*, 12, 106-113.

Nelson, P., & Jin, S.-H. (2004). Factors affecting speech understanding in gated interference: Cochlear implant users and normal-hearing listeners. *J Acoust Society of America*, 114, 2286-2294.

Nelson, P., Kohnert, K., Sabur, S., & Shaw, D. (2005). Classroom noise and children learning through a second language: Double jeopardy? *Lang, Spch, and Hg Services in Schools*, 36, 219 – 229.

DiGiovanni, J., Nelson, P., & Schlauch, R. (2005). A psychophysical evaluation of spectral enhancement. *Journal of Speech, Language, and Hearing Research*. 48 (5), 1121-1135. 16411801

Munson, B., & Nelson, P. (2005). Phonetic identification in quiet and in noise by listeners with cochlear implants. *Journal of Acoustical Society of America* 118, 2607-2617.

Jin, S. & Nelson, P. (2006) Speech perception in gated noise: the effects of temporal resolution, *Journal of Acoustical Society of America* 119, 3097 – 3108. (2, 4, 5, 6, 7)

Nelson, P., Hornsby, B., Moore, B.C.J., and Trine, T. (2007) Understanding individual differences in aided speech recognition and hearing aid success, *Hearing Review*, June, 20-23. (2, 3)

Jin, S. and Nelson, P. (2010) Interrupted speech perception: The effects of hearing sensitivity and frequency resolution, *Journal of the Acoustical Society of America*. 128, 881 – 889. PMC293326

Gregan, M.J. , Nelson, P. B. and Oxenham, A. J, and Nelson, P. (2010) Effects of background noise level on behavioral estimates of basilar-membrane compression, *Journal of the Acoustical Society of America*, 127, 3018 – 3025. PMID: 21117751 (2, 4, 5, 6, 7)

Anderson ES, Nelson DA, Kreft H, Nelson PB, Oxenham AJ. (2011) Comparing spatial tuning curves and spectral ripple resolution in cochlear implant users, *Journal of the Acoustical Society of America*, 130, 364-375. PMID: 21786905 (2, 4)

Gregan, M., Nelson, P. and Oxenham, A. (2011) Behavioral estimates of basilar-membrane compression: Additivity of forward masking in noise-masked normal-hearing listeners, *Journal of the Acoustical Society of America* 130, 2835-2844 (2, 4)

Jin, S., Nelson, P., Schlauch, R. and Carney, E. (2013) Hearing conservation program for marching band members: A risk for noise-induced hearing loss? *American Journal of Audiology* 22, 26-39.

Anderson, E., Oxenham, A., Nelson, P and Nelson, D (2012), Assessing the role of spectral and temporal cues in ripple detection and discrimination in cochlear-implant users, *J Acoust Soc Am*. 2012 Dec;132(6):3925-34. (2, 4, 7)

Gregan, J. Nelson, P. and Oxenham, A (2013) Behavioral measures of cochlear compression and temporal resolution as predictors of speech intelligibility and masking release in hearing-impaired listeners, *JASA* 134, 2895-2904.(2, 4, 6, 7)

Krause, M., Nelson, P., and Kennedy, M. (2014) Processing speed, masking release, and listening effort in adults with traumatic brain injury, *Brain Injury*, doi:10.3109/02699052.2014.920520

Jin, S.H., Nie, Y., and Nelson, P. (2013) Modulation interference and masking release in cochlear implant users, *American Journal of Audiology* 135-46. doi: 10.1044/1059-0889. (2, 4, 6)

Nie, Y., Svec, A., Nelson, P. and Munson, B. (2013) "The effects of temporal envelope confusion on listeners' phoneme and word recognition" *Proceedings of Meetings in Acoustics*, for meeting of the International Congress on Acoustics, Montreal, June.

Nie, Y., Zhang, Y., and Nelson, P.B. (2014) Auditory stream segregation using bandpass noises: evidence from event-related potentials. *Frontiers in Neuroscience*. Vol. 8 August, doi: 10.3389

Blaiser, K., Kohnert, K. and Nelson, P. (2014). Fast-mapping and word learning in children with hearing loss, *Communication Disorders Quarterly*. doi: 10.1177/1525740114554483 (2, 4, 5, 6, 7)

Davies-Venn, E., Souza, P. and Nelson, P.B. (2015). Comparing auditory filter bandwidths, spectral ripple detection, spectral ripple discrimination and speech recognition: normal and impaired hearing. *JASA* 138: 492. doi: 10.1121/1.4922700.

Svec, A., Nelson, P. and Dubno, J. (2015) Inherent fluctuations in forward maskers: Effects of temporal envelope, age, and hearing loss, *JASA* 137, 1336–1343. dx.doi.org/10.1121/1.4908567

Nie, Y, Nelson, P. and Dinesh, D. (2015) Auditory stream segregation using amplitude modulated bandpass noise, *Frontiers in Psychology*, <http://dx.doi.org/10.3389/fpsyg.2015.01151>

Miller, S., Zhang, Y. and Nelson, P (2015) Efficacy of multiple-talker phonetic identification training in postlingually deafened cochlear implant listeners. *Journal of Speech, Language, and Hearing Research* doi:10.1044/2015_JSLHR-H-15-0154

Miller, S., Zhang, Y. and Nelson, P. (2016) Neural correlates of phonetic learning in postlingually deafened cochlear implant listeners, *Ear and Hearing* 37, 514-28. DOI:10.1097/AUD.0000000000000287

Svec, A., Nelson, P. and Dubno, J. (2016) "Inherent envelope fluctuations in forward maskers: Effects of masker-probe delay for listeners with normal and impaired hearing" *J Acoust. Soc. Am* 139, 1195 – 1203. DOI: 10.1121/1.4944041

Koerner, T., Zhang Y, Nelson P, Wang, B. and Zou, H. (2016) Neural indices of phonemic discrimination and sentence-level speech intelligibility in quiet and noise: A mismatch negativity study, *Hearing Research*, 339: 40-49. <http://dx.doi.org/10.1016/j.heares.2016.06.001>

Koerner, T., Zhang Y, Nelson P, Wang, B. and Zou, H. (2017) Neural indices of phonemic discrimination and sentence-level speech intelligibility in quiet and noise: A P3 study. *Hearing Research*, 350: 58-67. <https://doi.org/10.1016/j.heares.2017.04.009>

Nelson, P., Gregan, M., Perry, T., and VanTasell, D. (2018) "Self-adjusted amplification parameters produce large between-subject variability and preserved speech intelligibility in noise", *Trends in Hearing*. 22. 1 – 13. doi.org/10.1177/2331216518798264

Dirks, C., Nelson, P., Sladen, D. and Oxenham, A. (2019) "Mechanisms of Localization and Speech Perception with Colocated and Spatially Separated Noise and Speech Maskers Under Single-Sided Deafness with a Cochlear Implant ". *Ear & Hearing* 40 (6) 1293-1306

Perry, T. Van Tasell, D. and Nelson P.(2019) "Listener factors predict limited variability in self-adjusted gain", *Trends in Hearing*, 23, 31216519837124

McGee, J., Nelson, P., Ponder, J., Marr, J., Redig, P and Walsh. E. (2019) Auditory performance in bald eagles and red-tailed hawks: A comparative study of hearing in diurnal raptors, *J. Comparative Physiology A* 205 (6) 793-811.

Dirks, C., Nelson, P., Winn, M. and Oxenham, A. (2020) "Sensitivity to binaural temporal-envelope beats with single-sided deafness and a cochlear implant as a measure of tonotopic match" *J Acoust Soc Am*, 147 (5) 3626-3630

Nelson, P., Anderson, E., and Beechey, T. (2020) "Laboratory simulations of conversation scenarios: questionnaire results from patient and partner", *Proceedings of Meetings on Acoustics* 39 (1) 050004.

LaBarbera, K., Nelson, P. and Bee, M. (2020) "Mate choice and the 'opposite miss' to Weber's law: proportional processing governs signal preferences in a treefrog" *Animal Behaviour* 168, 199-209.

O'Neill, E. Basile, J. and Nelson, P. (2021) "Individual hearing outcomes in cochlear-implant users influence social engagement and listening behavior in everyday life," *Journal of Speech, Language, and Hearing Research* JSLHR-21-00249R1

Dirks, C., Nelson, P., and Oxenham, A. (2022) "No benefit of deriving cochlear implant maps from binaural interactions for speech perception of spatial hearing under single-sided deafness," *Ear and Hearing*, ISSN: 0196-0202 , 1538-4667; DOI: 10.1097/AUD.0000000000001094; PMID: 34291758

Perry, T. and Nelson, P. (2022) “Self-adjustment of hearing aid amplification for lower speech levels: independent ratings, paired comparisons, and speech recognition,” *American Journal of Audiology*, 31, 305-321. https://doi.org/10.1044/2022_AJA-21-00164

Teece, K., Oeding, K., and Nelson, P. (2022) Adults with hearing loss demonstrate resilience during COVID-19 pandemic: Applications for post-pandemic services, *American Journal of Audiology*, 31, 392-402. https://doi.org/10.1044/2022_AJA-21-00234

Xiong, Y., Addleman, D., Nguyen, N., Nelson, P., and Legge, G. (2022). Visual and auditory spatial localization in younger and older adults” *Frontiers in Aging Neuroscience*, 14, 838194. <https://doi.org/10.3389/fnagi.2022.838194>

Svec, A., Nelson, P. and Wojtcak, M. (2022) Amplitude modulation forward masking for listeners with and without hearing loss, *JASA-EL*. 2 (12), 124401. <https://doi.org/10.1121/10.0015315>

Rohren, L. et al. (2024) Congenital CMV (cCMV)-associated sensorineural hearing loss (SNHL) in children: Identification following Universal Newborn Hearing Screening, Effect of antiviral treatment, and long-term hearing outcomes. *Ear and Hearing DOI: 10.1097/AUD.0000000000001411*

Xiong, Y., Addleman, D., Nguyen, N., Nelson, P., and Legge, G. (2023). Dual Sensory Impairment: Impact of Central Vision Loss and Hearing Loss on Visual and Auditory Localization. *Investigative Ophthalmology & Visual Science* September 2023, Vol.64, 23. doi:<https://doi.org/10.1167/iovs.64.12.23>

Wu, W., Nelson, P., Oeding, K., Anderson, E., Teece, K., and Legge, G. (in revision) The impact of the COVID-19 pandemic on social isolation in older adults with vision loss or hearing loss, *PONE-D-21-27428*

c) Non-refereed Journal Articles, Essays, or Book Chapters

Nelson, P. (1997). Impact of hearing loss on children in typical school environments. Invited lay language WWW version for science press writers: <http://www.acoustics.org/press/133rd/2paaa2.html>

Molter, D., & Nelson, P. (1997). Central auditory processing disorders in children, *Current Opinion in Otolaryngology & Head and Neck Surgery*, 5, 337-339.

Nelson, P. (1998). Incidence and impact of auditory disorders in children, *Eliminating Acoustical Barriers to Learning in Classrooms*, Proceedings of Acoustical Society of America Workshop.

Tejero-Calado, J. C., Rutledge, J., & Nelson, P. (1998). Combination compression and linear gain processing for digital hearing aids. *Proceedings of the 20th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, 3140 – 3143

Nelson, P., & Revoile, S. (1998). Enhancing second formant identification in speech by listeners with significant hearing loss. *Proceedings of the 16th International Congress on Acoustics and 135th Meeting of the Acoustical Society of America*, 223 - 224

Aguilera Munoz, C. M., Nelson, P., & Rutledge, J.C. (1999). Enhancement of spectral contrast in speech for hearing-impaired listeners. *Proceedings of IEEE European Speech Signal Processing Workshop: Nonlinear Signal and Image Processing*.

Nelson, P., & Soli, S. (2000). Prologue, Epilogue, and Appendix for the special issue on “Improving Acoustics in American Schools.” *Lang, Spch, and Hearing Services in Schools*, 31, 354-355, 389-393.

Tejero-Calado, J. C., Rutledge, J.C., & Nelson, P. (2001). Preserving spectral contrast in amplitude compression for hearing aids. *Proceedings of the 23rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society*.

Lubman, D., Nelson, P., & Sutherland, L. (2004). The missing leg for a three-legged stool: Why all benefit from the new national standard for classroom acoustics. *Seventy-Fifth Anniversary Archive for the Acoustical Society of America*. <http://www.acoustics.org/press/147th/classroom-acoustics.htm>

Nelson, P. (2005) Classroom noise, inaugural issue of *Acoustics Today*, Vol.1, Issue 1,

Angerman, S., Fuller, A., Wetzell, C. and Nelson, P. (2005) Educational impact of hearing loss in children, prepared for MSHA continuing education.

Nelson, P. and Goffman, L. (2006) Developing a Research Question, *ASHA Leader*, spring 2006

Committee on Research Ethics in the Publication Process (2006) Guidelines for the responsible conduct of research: Ethics and the publication process, *ASHA*

Carlstrom, J., & Nelson, P. (2008). Pediatric audiology. Chapter in K. Moller & L. Glaze (Eds.). *Cleft lip and palate: Interdisciplinary Issues and Treatment, 2nd Edition*, Austin, TX: Pro-Ed.

Schlauch, R. & Nelson, P. (2009). Pure tone audiometry. Chapter in Katz, J, Medwetsky, L, Burkhard, R., and Hood, J. Eds., *Handbook of Clinical Audiology, 6th Edition*, Philadelphia, Lippincott. Revised for new edition 2013.

Nelson, P. and Blaiser, S. (2010) Classroom Acoustics, *ASHA Leader*.

Fullerton, J. and Nelson, P. (2011) ANSI S12.60 Classroom Acoustics Standard for K-12 and Higher Education Institutions, *American School and University Magazine*. 83 (6), 22 – 25.

Gibson, P.L., Hedin, D.S., Davies-Venn, E. Nelson, P. and Kramer K. (2012). Multi-microphone adaptive array augmented with visual cueing, Engineering for Medicine and Biology Conference,

Lim, H., Adams, M., Nelson, P. and Oxenham, A. (2017) Restoring Hearing with Neural Prostheses: Current Status and Future Directions. *Neuroprosthetics: Theory and Practice*. Vol. 2 Series on Bioengineering and Biomedical Engineering. Horch, K and Kipke D. Editors. PP 668-709. ISBN: 978-981-3207-14-1

Winn, M., & Nelson, P. (2021, August 31). Cochlear implants. In *Oxford Research Encyclopedia of Linguistics*. Last modified (Sept 2021). doi: <https://doi.org/10.1093/acrefore/9780199384655.013.893>

3. Presentations, Posters, and Exhibits

a) *Selected Presentations at Professional Meetings, Conferences, etc.*

Davies-Venn, E., Nelson, P. and Souza, P. (2011). Evaluating the relationship between three different measures of spectral resolution and speech recognition. Poster presentation for American Auditory Society, Scottsdale, March.

Nelson, P., Wojtczak, M., Nie, Y., Davies-Venn, E. (2011). “Puretone glide detection and simulated formant transition discrimination by listeners with hearing loss.” Podium presentation at Acoustical Society of America, Seattle, May

Jin, S.H., Nie, Y. and Nelson. P. (2011). Speech perception in steady and amplitude modulated bandpass noise.” Poster presentation at Acoustical Society of America, Seattle, May.

Gregan, M., Nelson, P., and Oxenham, A. (2011). Relationship between basilar membrane compression estimates and masking release. Poster presentation at Acoust Soc of America, Seattle.

Krause, M., Nelson, P., and Kennedy, M. (2011). Effects of lowpass filtering and accent in a singletalker interference task. Poster presentation at Acoustical Society of America, Seattle, May.

Nie, Y., Zhang, Y., and Nelson, P. (2011) “Auditory Stream Segregation In CI Simulations: Evidence From Event-Related Potentials,” poster presentation, Conference on Implantable Auditory Prostheses, Asilomar CA.

Davies-Venn, E., Nelson, P., Nie, Y, Svec, A. and Katare, B (2011) Investigating the effect of speech stimuli on temporal masking release, poster presented at Acoustical Society of America, Nov 2011.

Krause, M, Kennedy, M, and Nelson, P, 2011, A mixed-methods study of complex speech processing after brain injury, presentation at Amer Speech-Language-Hearing Association, Nov.

Davies-Venn, E., Nelson, P. and Nie, Y. (2012) Level effects on spectral resolution measures for normal-hearing and hearing-loss, podium presentation at American Auditory Society, March 2012

Nie, Y and Nelson, P. (2012) The effects of temporal envelope confusion on release of masking, paper presented at Acoustical Society of America, Hong Kong, May 2012

Krause, M., Kennedy, M. and Nelson, P. (2012) Subjective reports on complex speech processing in adults with and without TBI: A mixed-methods study, presentation at IBIA Ninth Annual World Congress. Edinburgh.

Gregan M, Nelson, P. and Oxenham, A. (2012) Links between mismatch negativity responses and speech intelligibility in noise, Poster presentation submitted for International Hearing Aid Conference, Tahoe, August 2012

Davies-Venn, E. Nelson, P. Strickland, E. and Schwartz, C (2012) Level effects on narrowband versus broadband measures of frequency resolution, Paper submitted for International Hearing Aid Conference, Tahoe, August 2012

Gibson, P., Nelson, P., Davies-Venn, E., and (2012) Multi-microphone Adaptive Array Augmented with Visual Cueing, the 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'12) San Diego, California, USA on August 28 - September 1, 2012.

Nelson, P., Gregan, M., Nie, Y., Svec, A., Koerner, T. and Katare, B. (2012) Variability in speech understanding in noise by listeners with hearing loss, poster presented at Acoustical Society of America, Fall 2012

Koerner, T., Zhang, Y., and Nelson, P. (2012) Links between mismatch negativity responses and speech intelligibility in noise, poster presented at Acoustical Society of America, Fall 2012

Ruggles, D., Nelson, P. and Oxenham, A (2013) “Impaired speech understanding and unmasking with whispered speech,” poster presentation for American Auditory Society, March 2013

Nie, Y., Nelson, P. and Sullivan, M. (2013) “User evaluation of a hearing instrument system for noisy conditions “ poster presentation for American Auditory Society, March 2013

Nelson, P. and Richter , M. (2013) Wireless Connectivity for Listeners with Hearing Loss, poster presentation for American Academy of Audiology, April 2013

Nelson, P. and DeRuiter, M. (2013) "Creating a Map for Success: AuD/PhD Recruitment, Programming, and Funding," paper presentation accepted for Conference of Council of Academic Programs in Communication Sciences and Disorders, April

Nie, Y., Nelson, P., Svec, A. and Munson, B. (2013) The effects of temporal envelope confusion on listeners' phoneme and word recognition presentation for Acoustical Society of America, Montreal

Nie, Y., Miller, S., Koerner, T., Nelson, P. and Zhang, Y. (2013) Masking release in speech with degraded spectral cues: evidence from event-related potentials, presentation for Conference on Implantable Auditory Prostheses, July 2013

Svec, A., Munson, B., and Nelson, Peggy B. (2013) Effects of hearing loss and linguistic context for phoneme and word recognition in noise, presentation for Acoustical Society of America, San Francisco, December 2013

Nelson, P., VanTasell, D., Sabin, A., Gregan, M., Hinz, J., Brandewie, E. and Svec, A (2014) User self-adjustment of a simulated hearing aid in laboratory versus real-world noise. Poster presented at American Auditory Society, March.

Miller, Nelson, Yang (2014) Neural Correlates of Phonetic Learning in Adult Cochlear Implant Users Poster presented at American Auditory Society, March.

Svec, Nelson, Dubno (2014) Effects of inherent envelope fluctuations in forward maskers for listeners with normal and impaired hearing, poster presented at Acoust Society of America, Providence, May

Nelson, P. Gregan, M., VanTasell, D., Hinz, J., Sabin, A., and Svec, A. (2014), Hearing aid users' self-adjustment of amplification in noisy listening conditions, International Hearing Aid Conference, Lake Tahoe CA, July

Davies-Venn, E., Kwan, T., Nie, Y., Zilany, M. and Nelson, P. (2015). Computational auditory-nerve model of level effects on spectral resolution. American Auditory Society Research Meeting,

Nelson, P., VanTasell, D, Gregan, M and Svec, A. (2015) Effects of self-adjusted hearing aid gain on audibility and intelligibility of speech, American Auditory Society Research Meeting, Scottsdale, AZ

Nelson, P. (2015) Understanding speech in noisy rooms: Continuing the Sutherland legacy, paper presented at Acoustical Society of America, Pittsburgh.

Koerner, T., Zhang, Y., and Nelson, P. (2016) Mismatch negativity responses predict speech intelligibility in quiet and noise, poster presentation at Association for Research in Otolaryngology,.

Nelson, P. (2016) Use of self-adjusted gain for noisy rooms: gain variability in noise, presentation for American Auditory Society, Scottsdale, March

Perry, T, Nelson, P., VanTasell, D. (2016) Individual differences in self-adjustment of hearing aid amplification. Poster presented at 171st meeting of the Acoustical Society of America, Salt Lake City,

Nelson, P., Sullivan, M., Adams, M. and Byrne, A. (2016) Measuring perceptual effects of infrasound, presentation at 171st meeting of the Acoustical Society of America, Salt Lake City, May.

McKinney, M., Zhang, Y., Yu, L., Koerner, T., Zhang, T., and Nelson, P. (2016) Neural correlates of speech clarity as affected by hearing aid delay for normal-hearing and hearing-impaired listeners. Poster presented at International Hearing Aid Conference, Lake Tahoe, CA., July.

Nelson, P. and VanTasell, D. (2016) Self-fitting hearing aids reveal strong individual preferences in noisy rooms. Invited presentation, 5th joint meeting of the Acoustical Society of America and Acoustical Society of Japan, Honolulu, November

Nelson, P., Sullivan, M. and Adams, M. (2016) Measures of sway as perceptual response to infrasound. 5th joint meeting of the Acoustical Society of America and Acoustical Society of Japan,

Nelson, P., VanTasell, D., Gregan, M., Perry, T., Dirks, C. and Day, K. (2017) Listeners prefer self-adjusted gain over audiologist-fitted settings in blind comparisons. Poster presentation at American Auditory Society, March 2017.

Kelly-Campbell, R. and Nelson, P. (2017) Domain-specific Locus of Control and Hearing Aid Uptake. Podium presentation at American Auditory Society, March 2017.

Nelson P., VanTasell D., and Perry, T (2017) Self-fitting hearing aids reveal strong effects of sound quality and comfort, presented at Acoustical Society of America, June

Nelson P and Schlauch, R. (2017) Acoustic standards in audiology education, presented at Acoustical Society of America, June

Nelson, P, A Byrne, M Waggenpack, M Sullivan, C Feist, W Herb (2017) Human postural sway results in response to audible and infrasound emissions from wind turbines, Acoustical Society of America, New Orleans

AM Jaramillo, PB Nelson, BC Olson (2017) Speech intelligibility studies in a historic multipurpose room, Acoustical Society of America, New Orleans

Nelson, P., Waggenpack, M., Byrne, A., Sullivan, M., Adams, M. and Marr, J. (2018) Simulated wind turbine emissions: Results from additional human response testing. *The Journal of the Acoustical Society of America* 144 (3), 1859-1859

Walsh, E., Nelson, P., Ponder, J., Milliren, C., Feist, C., Marr, J., Redig, P. and McGee, J. (2018)
The auditory attributes of Golden Eagles: Do Golden (*Aquila chrysaetos*) and Bald Eagles (*Haliaeetus leucocephalus*) share the same auditory space? *Journal of the Acoustical Society of America* 144 (3), 1742-1742

Bochat, S., Doing, M., Nelson, P., Jaramillo, A. and Olson, BC (2018) Multifunction speech intelligibility in a renovated historic room. *The Journal of the Acoustical Society of America* 143 (3), 1894-1894

Walsh, E., Nelson, P., Ponder, J., Milliren, C., Feist, C., Marr, J., Redig, P. and McGee, J (2018) Calls of the bald eagle (*Haliaeetus leucocephalus*) *The Journal of the Acoustical Society of America* 143 (3), 1897-1897

Dirks, C., Nelson, P., and Oxenham, O. (2018) Using binaural beat sensitivity to explore mechanisms of bimodal temporal envelope beat sensitivity. *The Journal of the Acoustical Society of America* 143 (3), 1939-1939

Perry, T., Nelson, P., and VanTasell, D. (2018) Listener preferences and speech recognition outcomes using self-adjusted hearing aid amplification. *The Journal of the Acoustical Society of America* 143 (3), 1742-1742

- O'Neill ER, Nelson, P (2018) Social factors impacting speech perception outcomes in cochlear implant users. Midwest Conference on Cochlear Implants (CI Crash), Madison, WI
- Nelson, P., Anderson, E., Perry, T. Oeding, K and Byrne A. (2019) Evaluating new hearing aid technologies in laboratory simulations of listening scenarios. The Journal of the Acoustical Society of America 145 (3), 1879
- McGee, J., PB Nelson, J Marr, J Ponder, C Milliren, C Feist, A Byrne, ... (2019) Bald eagles (*Haliaeetus leucocephalus*) monitor their immediate acoustic environment vigilantly. The Journal of the Acoustical Society of America 145 (3), 1806.
- O'Neill ER, Basile, JD, Nelson, P (2019) Social factors and individual outcomes in cochlear implant users. Conference on Cognitive Hearing Science for Communication, Linkoping, Sweden (June).
- O'Neill ER, Basile, JD, Nelson, P (2019) Social factors and individual outcomes in cochlear implant users. Association for Research in Otolaryngology Midwinter Meeting, Baltimore, MD (February).
- Nelson, P., Byrne, A. Waggenspack, M., Feist, C., Lueker, M., Herb, W., and Marr, J. (2019) Testing the human response to wind turbine emissions, paper presented at 8th International conference on Wind Turbine Noise, Portugal, June.
- Dirks, C., Nelson, P. and Oxenham, A. (2019) Using dynamic ITD sensitivity to match electric and acoustic hearing in patients with unilateral cochlear implants and residual contralateral hearing: localization and speech perception outcomes. Talk presented at Conference on Implantable Auditory Prostheses, Lake Tahoe, July.
- O'Neill, E., Basile, J., and Nelson, P. (2019) Social factors and individual outcomes in cochlear implant users. Poster presented at Conference on Implantable Auditory Prostheses, Lake Tahoe, July.
- Nelson, P., Anderson, E., and Beechey, T. (2019) Laboratory simulations of conversation scenarios: questionnaire results from patient and partner. Talk presented at Acoustical Society of America, San Diego, December.
- Xiong, Y., Addleman, D., Nelson, P., and Legge, G. (2019) The impact of vision status on spatial localization, Association for Research in Vision and Ophthalmology, 1050.
- Beechey, T., Buchholz, J, and Nelson, P. (2020) Poster presented at Association for Research in Otolaryngology, San Jose Jan
- Nelson, P., Anderson, A., Beechey, T., Waggenspack, M and Westman, M (2020) "Virtual Scenarios for evaluation communication, sensory aids, and social engagement" Poster presented at American Auditory Society Mar
- Nelson, P., Wu, W y-H, Oeding, K., Anderson, E., Teece, K, and Legge, GE (2020) "Impact of social distancing on persons with sensory loss during COVID-19 pandemic," poster presented at 179th (virtual) meeting of the Acoustical Society of America, Dec.

- Klang, A., Gianakas, S., O'Neill, E., Beechey, T. and Nelson, P. (2021) Partnership-Centered Audiology Service Model for Older Adults with Hearing Loss, poster presented at 2022 meeting of the American Auditory Society, Scottsdale, March
- Xiong, Y. Nguyen, N., Nelson, P., and Legge, G. (2021) Visual cues reduce spatial uncertainty in multi-talker situations, presented at Association for Research in Vision and Ophthalmology, Sept.
- Nelson, P., Wu, W y-H, Oeding, K., Anderson, E., Teece, K, and Legge, GE (2021) "COVID-19 effects on social isolation for older persons with sensory loss," Invited for Hot Topics lecture session at 180th meeting of the Acoustical Society of America, Seattle, Dec. Selected for AIP press release.
- McGee, J., Nelson, P., Ponder, J., Feist, C., Milliren, C., and Walsh, Ed. (2021) A study of the vocal behavior of adult bald eagles during breeding and chick-rearing. Paper presented at 180th meeting of the Acoustical Society of America, Seattle, Dec. Selected for lay-language paper.
- Lewis, D., Sullivan, J., Irwin, J., and Nelson, P. (2022) Benefits of app-based speech in noise screener for children The Journal of the Acoustical Society of America 151 (4), A133-A133
- Pinault-Toves, A., Nelson, P., Gianakas, S., Sullivan, J., and Winn, M. (2022) Relationship of noise history to perceived loudness and physiological arousal from noise, The Journal of the Acoustical Society of America 151 (4), A256-A256
- Klang, A., Gianakas, S., O'Neill, E., Beechey, T., and Nelson, P. (2022) Partnership-Centered Care in Audiology for Older Adults with Hearing Loss. Poster presented at International Hearing Aid Conference, Tahoe City CA, August. Student award. (Withdrawn due to COVID)
- Urbanski, D., Nelson, P., Donato, S., Rosenthal, J. and Swaminathan, J. (2022) Self-adjustment versus prescriptive fitting: How much of a difference really makes a difference? presented at International Hearing Aid Conference, Tahoe City CA, August.
- Urbanski, D. O'Neill, E., Rankil, R. Ellison, J. and Nelson, P. (2022) What is audiologic counseling and what could it be?: A mixed-methods study of adult hearing aid counseling and possible adaptations for remote service models. Poster presented at International Hearing Aid Conference, Tahoe City CA, August. Student award.
- Oeding, K., Davies-Venn, E., and Nelson, P. (2022) Individual factors that impact noise tolerance, poster presentation at Acoustical Society of America, December.
- Nelson, P., Wheeler, H., Andriacchi, M., and O'Neill, E. (2023) Effectiveness of remote post-fitting support for over-the-counter hearing devices, The Journal of the Acoustical Society of America 154 (4_supplement), A32-A32
- Xiong, Y., Nelson, P., Fletcher, D., and Legge, G. (2023) Beyond Vision: The Selection of Preferred Retinal Loci is Affected by Hearing Status, Investigative Ophthalmology & Visual Science 64 (8), 2436-2436
- McGee, J., Feist, C., Milliren, C., Arent, L., Ponder, J., Nelson, P. and Walsh, E. (2023) Behavioral responses of bald eagles (*Haliaeetus leucocephalus*) to acoustic stimuli in a laboratory setting, The Journal of the Acoustical Society of America 153 (3_supplement), A186-A186
- Nelson, P., Wheeler, H., Andriacchi, M., and O'Neill E. (2023) Effectiveness of remote post-fitting support for over-the-counter hearing devices. The Journal of the Acoustical Society of America 154 A324

Xiong, Y., Nelson, P., Fletcher, D. and Legge, G. (2023) Beyond Vision: The Selection of Preferred Retinal Loci is Affected by Hearing Status Investigative Ophthalmology & Visual Science 64 (8), 2436-2436

McGee, J., Feist, C., Milliren, C Arent, L., Ponder, J., Nelson, P and Walsh E. (2023) Behavioral responses of bald eagles (*Haliaeetus leucocephalus*) to acoustic stimuli in a laboratory setting The Journal of the Acoustical Society of America 153 (3_supplement), A186-A186

Wheeler, H., Nelson, P., Ellison, J. and O'Neill, E. (2023) Evaluating remote post-fitting support services for over-the-counter hearing devices. The Journal of the Acoustical Society of America 153 (3_supplement), A159-A159

Lyons, T., Gianakas, S., Teece, K. and Nelson, P. (2024) Partnership-Centered Audiology for Older Adults with Hearing Loss. Poster presented at American Auditory Society, March.

O'Neill, E., Wu, W., and Nelson, P. (2024) Incorporating minority perspectives into study design. Invited talk presented at Acoustical Society of America, Ottawa, May.

Kokkinakis, K., Teece, K., Nelson, P. and others (accepted 2024) Clinical Results from an Over-The-Counter Self-Fitting Hearing Aid, International Hearing Aid Conference, August.

b) Selected Invited Presentations,

Nelson, P. (2019) Testing self-adjustment of hearing aids in realistic environments, talk presented at Hearing 4 All summer school, Oldenburg Germany.

Nelson, P. (2019) In-service for Fairview University audiology, October.

Nelson, P. (2020) Evolving approaches to hearing-aid fitting: self-adjustment and realistic scenarios, Trans-Tasman Audiology Society, June 2020

Nelson, P. (2024) Emerging trends in devices for persons with hearing loss. Spanish-speaking acousticians, June 2024 (ssaasa.org)

D. TEACHING AND CURRICULUM DEVELOPMENT

1. University of Minnesota

a) Courses, Seminars, and Instructional Units Taught

SLHS 1302, Rate Your World
CDIS 3402W, Major Project in Speech and Hearing Sciences
SLHS 4803, Hearing Measurement and Disorders
SLHS 5802, Hearing Aids I
SLHS 5807, Noise and Hearing Conservation
SLHS 5808, Pathophysiology of Hearing Disorders
SLHS 8802, Hearing Aids II
SLHS 8994, Directed Research
GCC 5022 – Human Experience of Sensory Loss, co-taught

E. SERVICE AND PUBLIC OUTREACH

1. Service to the Discipline/Profession/Interdisciplinary Areas

a) Editorships/Journal Reviewer Experience

Editor-in-Chief, Hearing section, Journal of Speech-Language-Hearing Research, 2020 --23
Associate editor, Journal of the Acoustical Society of America, 2011- 2015.
Guest associate editor, Journal of Speech, Language, and Hearing Research, 2009 - 2011
Associate Editor, Journal of Speech, Language, and Hearing Research (2005-2008)

Associate Editor, *Language, Speech and Hearing Services in Schools* (2001 – 2004)
Guest Editor, *Language, Speech and Hearing Services in Schools* issue on Classroom Acoustics, 2000
Guest reviewer, *The Lancet*, 2003, 2007
Reviewer, *Journal of the Acoustical Society of America* 2000 - present
Reviewer, *Journal of Speech, Language, and Hearing Research*, 2000 - 2011
Reviewer, *Language, Speech, and Hearing Services in Schools*, 2000 - 2006
Reviewer, *Ear and Hearing*, 2000 – 2018
Reviewer, *American Journal of Audiology*, 2000 - 2007
Reviewer, *Journal of the Association for Research in Otolaryngology*, 2001 – present
Reviewer, *Hearing Research*, 2004, 2009, 2010
Reviewer, *Journal of the American Academy of Audiology*, 2008
Reviewer, *Noise Control Engineering Journal*, 2008
Reviewer, *PlosONE*, 2021
Reviewer, *PNAS*, 2021

b) *Committee Memberships*

Vice-chair, Committee to Improve Racial Diversity and Inclusion, Acoustical Society of America, 2020 – 2023
Vice-chair, Minnesota Commission for Deaf, Deafblind, and Hard-of-Hearing, 2019 -- 21
Nominating committee, Acoustical Society of America, 2011
Chair, Panel on Public Policy, Acoustical Society of America, 2010 – present
Member, Acoustical Society of America Foundation Board, 2009 – present.
Member, strategic planning committee, Acoustical Society of America, 2011 – 15
Chair, Minnesota State Department of Health, Newborn Hearing Screening Advisory Committee, 2009 – 2010 (elected by committee members)
Chair, Acoustical Society of America Foundation Transition Board, 2008 – 2009.
Member and Chair, American Academy of Audiology task force on classroom acoustics, 2007 to present
Member, American Speech-Language-Hearing Association Committee on Ethics in Publication Process, 2005-08 (appointed by Association president)
Executive council, Acoustical Society of America, 2006 – 2009 (elected by membership)
General meeting chair, 150th meeting of the Acoustical Society of America, held October, 2005 in Minneapolis, MN, 2004-2005 (appointed by executive director)
Member, Speech Communication Technical Committee, Acoustical Society of America, 2003-2005
Nominating committee, Speech Communication Technical Committee, 2003-present
Member, Awards committee, American Academy of Audiology, 2003-present
Member, Research and Scientific Affairs Committee, American Speech-Language-Hearing Association, 2002-2005
Member, MN State Department of Health, Newborn Hearing Screening Advisory Committee, 2000-present (governor's appointment)
Member, Acoustical Society of America Committee on Standards, 1999-present
Nominating committee, ASACOS, 2003-2006
Member, Acoustical Society of America Committee on Women in Acoustics, 1999-present
Chair, Acoustical Society of America Committee on Women in Acoustics, 2003-2006
Member, Task force on Classroom Acoustics, Acoustical Society of America, 1997-present
Member, Acoustical Society of America Nominating Committee (for President, Vice-President and Executive Council, 2004)
Associate Editor, *Language, Speech and Hearing Services in Schools*, 2001-2003
Member, Media Relations Committee, Association for Research in Otolaryngology, 2000-2
Member, Psychological and Physiological Acoustics Technical Committee, Acoustical Society of America, 1998-2000
Member, Publications Board, American Speech-Language-Hearing Association, 1998-2000
Member, Maryland coalition on Early Detection of Hearing Impairment, 1996-1999

Kansas Commission for the Deaf and Hearing Impaired, Subcommittee on Early Intervention, 1988-1992
Supervisor: Five Clinical Fellowship Year experiences, 1984-2003
Clinical Consultant: Manhattan, St. George, Council Grove, Kansas Schools, 1982-1988

c) ***Review panels for external funding agencies, foundations, etc.***

VA RR&D, Fall 2021 (ad hoc)
NIH AUD panel, Fall 2021 (ad hoc)
PCORI panel, Fall 2019
Food and Drug Administration, consultant for Cochlear Implants, 2015 - 2018
Veterans' Administration grant review panel, Spring 2008, Fall 2008, Summer 2012
Permanent member of VA Sensory Systems and Communication Disorders review panel, 2013 – 2017
Permanent member, NIDCD AUD panel, Fall 2016 -- 2020
NIH Challenge Grant reviews, May 2009
NIH P30 grant review panel, June 2009
NIH R03 grant review panel, December 2009, Feb 2010, October 2010, February 2011
NIH R01 grant review panel, February 2011, June 2011, Jan 2012, June 2012, January 2014
UK Medical Research Council grant review, Fall 2010
NIH SBIR/STTR panel 2021-2023

2. Public and Other Service

a) ***National Policy Work***

Testimony at Rayburn Office Building, HB 1701, classroom acoustics, May 2009
Presentation for U. S. Access Board, need for classroom acoustics in International Building Code, May 2009
Presentation to International Code Council, May 2010
Appointed to FDA Cochlear Implant expert panel consultant, spring 2015
Governor's appointee to Minnesota Minnesota Commission for Deaf, Deafblind, and Hard-of-Hearing, 2018 -- present

b) Discipline-wide inclusion work

Co-chair ASA Committee for Improving Racial Diversity and Inclusivity (CIRDI)
Co-developer of inaugural Summer Undergraduate Research Industry Experience in Acoustics (SURIEA) program; mentored an undergraduate student