

PAMELA E. SOUZA

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Education

Ph.D., Syracuse University (Audiology) <i>Dissertation: Envelope cues and audibility: a systematic investigation of compression</i>	1996
M.S., Syracuse University (Audiology) <i>Thesis: Masking of speech in young and elderly hearing-impaired listeners</i>	1992
B.S. magna cum laude, Univ. of Massachusetts (Communication Disorders) <i>Honors thesis: Intelligibility of voiceless consonants in low-pass filtered speech</i>	1990

Academic and Research Experience

Professor, Otolaryngology, Northwestern University	October 2019-present
Chair, Communication Sciences and Disorders, Northwestern Univ.	Sept. 2019-present
Associate Chair, Communication Sciences and Disorders, Northwestern Univ.	Sept. 2018-Sept. 2019
Affiliated faculty, Linguistics, Northwestern University	Oct. 2013-present
Professor, Communication Sciences and Disorders, Northwestern University	Sept. 2013-present
Honorary Research Fellow, Dept. of Speech, Hearing and Phonetic Sciences, University College London, UK	Nov. 2012-2014
Research Associate Faculty, University of Colorado, Boulder	Sept. 2010 - 2013
Associate Professor, Communication Sciences and Disorders, Northwestern University	Sept. 2009 - Sept. 2013
Affiliate Professor, Speech & Hearing Sciences, Univ. of Washington, Seattle	Sept. 2009 - Sept. 2011
Associate Professor, Speech & Hearing Sciences, Univ. of Washington, Seattle	Sept. 2002-Aug. 2009
Honorary Research Fellow, Dept. of Phonetics and Linguistics, University College London, UK	Apr - Dec. 2007
Research Associate, National Center for Rehabilitative Auditory Research, Portland VA Medical Center, Portland, Oregon	Jan. 2007-Feb. 2007
Assistant Professor, Speech & Hearing Sciences, Univ. of Washington, Seattle	Aug. 1996-Sept. 2002
Research Assistant, Hearing Laboratory, Syracuse University	Aug. 1990-July 1996
Research Assistant, Hearing Laboratory, Univ. of Massachusetts	Sept. 1989-May 1990

Clinical Experience

Audiologist, Northwestern University Audiology Clinic	March 2011-June 2016
Contract audiologist, Veteran's Administration Medical Center, Seattle	Nov. 1997-Dec. 2009
Clinical supervisor, Gebbie Hearing Clinic, Syracuse University	Aug. 1994-May 1996
Audiologist, Yusef Sbah, M.D., Oswego, NY	April 1994-April 1996
Audiologist, Hearing & Speech Center, Faxton Hospital, Utica, NY and Faxton Hospital Hearing Instruments, Morrisville, NY	Sept. 1992-April 1996
Audiologist, Veteran's Admin. Medical Center, Syracuse, NY	May 1992-Sept. 1992

Clinical Certification and Licensure

Illinois State Licensure in Audiology
Washington State Licensure in Audiology
ASHA Certificate of Clinical Competence in Audiology
New York State Licensure in Audiology

May 2010-present
Nov. 1997-Sept. 2010
Jan. 1994-present
Feb. 1994-Dec. 1996

Book Chapters and Invited Reviews

- Turton, L., Souza, P., Thibodeau, L., Hickson, L., Gifford, R., Bird, J., et al. (2020). Guidelines for best practice of the audiological management for adults with severe and profound hearing loss. *Seminars in Hearing*, 41, 141-245.
- Souza P. (2019). 20Q: The importance of cognitive assessment in audiology practice. *Audiology Online* [electronic publication].
- Souza P. (2018). Cognition and hearing aids: What should clinicians know? *Perspectives of the ASHA Special Interest Groups*, 3, 43-50.
- Souza P, Hoover E. (2018). The physiologic and psychophysical consequences of severe to profound hearing loss. *Seminars in Hearing*, 39, 349-363.
- Souza P, Roberts A. (2018). The vigilant audiologist: Recognizing signs of cognitive decline. *ASHA Audiology Connections*.
- Souza P. (2016). Speech perception and hearing aids. In *Hearing Aids*. Popelka, G.R., Moore, B.C.J., Fay, R.R., & Popper, A.N. (Eds).
- Souza P, Arehart K, Neher T. (2015). Working memory and hearing aid processing: Literature findings, future directions, and clinical applications. *Frontiers in Psychology* 6, 526. doi:10.3389/fpsyg.2015.00526.
- Hoover E, Souza P, Gallun F. (2015). Competing views on abnormal auditory results after mild traumatic brain injury. *Perspectives on Hearing and Hearing Disorders: Research and Diagnostics*, 19, 12-21. doi:10.1044/hhd19.1.12.
- Souza P. (2014). Hearing loss and aging: Implications for audiologists. *ASHA Access Audiology*, Nov. 2014 issue [electronic publication].
- Arehart K, Kates J, Souza P. (2014). The role of metrics in studies of hearing and cognition. *ENT & Audiology News*, 23, 92-93
- Souza P. (2012). 20Q: Cognition Measures -They Might Change the Way You Fit Hearing Aids! *Audiology Online* [electronic publication]
- Souza P, Arehart K. (2010). Hearing aid features: Do older people need different things? In *Hearing Care for Adults 2009*. Chicago: Phonak AG.
- Souza P. (2010). Optimising hearing aid settings to maximise speech audibility. *ENT & Audiology News* 18(6):81-84.
- Souza P. Hearing aids. (2009). In Binder M, Hirokawa N, Windhorst U. (Eds). *Encyclopedia of Neuroscience* (pp. 1817-20). New York:Springer.
- Souza P. (2008). Fitting recommendations for severe hearing loss. *Audiology Online* [electronic publication].
- Souza P. (2007). Translating compression research into clinical decisions. *Audiology Online* [electronic publication].
- Souza P, Boike K. (2006). The psychoacoustics of aging: Considerations for amplification. In *Hearing Care for Adults 2006*. Chicago: Phonak AG.
- Souza P. (2006). Issues related to hearing aid amplification of older adults. *Hearing and Hearing Disorders: Research and Diagnostics* 10:14-19.
- Souza P. (2006). Selecting and adjusting amplification for older listeners. *Seminars in Hearing* 27:303-310.
- Souza P, Tremblay K. (2006). New perspectives on assessing amplification effects. *Trends in Amplification* 10(3):119-144.
- Souza P. (2004). Fitting hearing aids on older listeners. *Hearing Journal* 57:10-17.
- Pichora-Fuller MK, Souza P. (2003). Effects of aging on auditory processing of speech. *International Journal of Audiology* 42:2S11-2S16.

- Souza P. (2003). Suprathreshold speech recognition. In Kent, R. (Ed.), *MIT Encyclopedia of Communication Disorders*.
- Souza P. (2002). Effects of compression on speech acoustics, intelligibility, and speech quality. *Trends in Amplification* 6:131-165.
- Turner C, Horwitz A, Souza P. (1992). Identification and discrimination of stop consonants: Formants versus spectral peaks. In *Auditory Physiology and Perception* (pp. 463-470). Cazals Y, Demanyu L, Horner K. (Eds). Oxford, UK: Pergammon Press.

Contributed Publications

- Souza P**, Ellis G, Marks K, Wright R, Gallun F. (in press). Does the speech cue profile predict response to envelope distortion? *Journal of Speech, Language and Hearing Research*.
- Arehart K, Chon S, Harvey L, Kates J, Anderson M, Rallapalli V, **Souza P**. (in press). A comparison of speech intelligibility and subjective quality with hearing-aid processing in older adults with hearing loss. *International Journal of Audiology*
- Stori D, Bradlow A, **Souza P**. (2021). Recognizing foreign-accented speech of varying intelligibility and linguistic complexity: Insights from older listeners with and without hearing loss. *International Journal of Audiology*, 60, 140-150.
- Rallapalli V, Ellis G, **Souza P**. (2020). Effects of directionality, wide dynamic range compression, and working memory on speech. *Ear and Hearing*, Oct. 29 [epub ahead of print].
- Ellis G, **Souza P**. (2020). The effect of hearing loss on localization of amplitude-panned and physical sources. *Journal of the American Academy of Audiology*, Oct. 8 [epub ahead of print].
- Black S, **Souza P**. (2020). Cognitive screening practices among audiologists. *Audiology Today*, 32, 44-51.
- Stori D, Bradlow A, **Souza P**. (2020). Recognition of foreign-accented speech in noise: The interplay between talker intelligibility and linguistic complexity. *Journal of the Acoustical Society of America*, 147, 3765-3782.
- Cornwell C, Woodward J, Wu M, Jackson B, **Souza P**, Siegel J, Dhar S, Gordon K. (2020). Walking with ears: Altered auditory feedback impacts gait step length in older adults. *Frontiers in Sports and Active Living*.
- Miller J, Watson C, Leek M, Wark D, **Souza P**, Gordon-Salant S, Ahlstron J, Dubno J. (2020). Sentence perception in noise by hearing-aid users predicted by syllable-constituent perception and the use of context. *Journal of the Acoustical Society of America*, 147, 273-284.
- Souza P**, Gallun F, Wright R. (2020). Contributions to speech-cue weighting in older adults with impaired hearing. *Journal of Speech, Language and Hearing Research*, 63, 334-344.
- Shen J, Sherman M, **Souza P**. (2020). Test administration methods and cognitive test scores in older adults with hearing loss. *Gerontology*, 66, 24-32.
- Calcus A, Schoof T, Rosen S, Shinn-Cunningham B, **Souza P**. (2020). Switching streams across ears to evaluate informational masking of speech-on-speech. *Ear and Hearing*, 41, 208-216.
- Reinhart P, Zahorik P, **Souza P**. (2020). Interactions between digital noise reduction and reverberation: Acoustic and behavioral effects. *Journal of the American Academy of Audiology*, 31, 17-29.
- Stiepan S, Siegel J, Lee J, **Souza P**, Dhar S. (2020). The association between physiological noise levels and speech understanding in noise. *Ear and Hearing*, 41, 461-464.
- Rallapalli V, Anderson M, Kates J, Balmert L, Sirow L, Arehart K, **Souza P**. (2020). Quantifying the range of signal modification in clinically-fit hearing-aids. *Ear and Hearing*, 41, 433-441.
- Shen J, **Souza P** (2019). The ability to glimpse dynamic pitch in noise by younger and older listeners. *Journal of the Acoustical Society of America*, 146, EL232.
- Souza P**, Arehart K, Schoof T, Anderson M, Stori D, Balmert L. (2019). Understanding variability in individual response to hearing aid signal processing in wearable hearing aids. *Ear and Hearing*, 40, 1280-1292.

- Reinhart P, Zahorik P, **Souza P**. (2019). Effects of reverberation on the relationship between compression speed and working memory for speech-in-noise perception. *Ear and Hearing*, 40, 1098-1105.
- Gallun F, Seitz A, Eddins D, Molis M, Stavropoulos T, Jakien K, Kempel S, Diedesch A, Hoover E, Bell K, **Souza P**, Sherman M, Calandruccio L, Xue G, Tarleb N, Sebena R, Srinivasan N. (2018). Development and validation of Portable Automated Rapid Testing (PART) measures for auditory research. *Proceedings of Meetings on Acoustics, POMA*, 7;33. doi: 10.1121/2.0000878.
- Shen J, **Souza P**. (2018). On dynamic pitch benefit for speech recognition in speech maskers. *Frontiers in Psychology*, 9:1967. doi: 10.3389/fpsyg.2018.01967
- Anderson M, Rallapalli V, Schoof T, **Souza P**, Arehart K. (2018). The use of self-report measures to examine changes in perception in response to fittings using different signal processing parameters. *International Journal of Audiology*, 57, 809-815.
- Souza P**, Wright R, Gallun F, Reinhart P. (2018). Reliability and repeatability of the speech cue profile. *Journal of Speech, Language and Hearing Research*, 61, 2126-2137.
- Reinhart P, **Souza P**. (2018). The effects of varying reverberation on music perception for younger normal-hearing and older hearing-impaired listeners. *Trends in Hearing*, 22, doi: 10.1177/2331216517750706.
- Souza P**, Hoover E, Blackburn M, Gallun F. (2018). Characteristics of adults with severe hearing loss. *Journal of the American Academy of Audiology*, 29, 764-779
- Reinhart P, **Souza P**. (2018). Listener factors associated with individual susceptibility to reverberation. *Journal of the American Academy of Audiology*, 29, 73-82.
- Anderson M, Arehart K, **Souza P**. (2018). Survey of current practice in the fitting and fine-tuning of common signal-processing features in hearing aids for adults. *Journal of the American Academy of Audiology*, 29, 118-124.
- Miller J, Watson CS, Leek MR, Dubno JR, Wark DJ, **Souza P**, Gordon-Salant S, Ahlstrom J. (2017). Syllable-constituent perception by hearing-aid users: Common factors in quiet and noise. *Journal of the Acoustical Society of America*, 141, 2933-2946.
- Shen J, **Souza P** (2017). Do older listeners with hearing loss benefit from dynamic pitch for speech recognition in noise? *American Journal of Audiology*, 26, 462-466.
- Shen J, **Souza P** (2017). The effect of dynamic pitch on speech recognition in temporally modulated noise. *Journal of Speech, Language and Hearing Research*, 60, 2725-2739.
- Ward K, Shen J, **Souza P**, Grieco-Calub T. (2017). Age-related differences in listening effort during degraded speech recognition. *Ear and Hearing*, 38, 74-84.
- Reinhart P, Zahorik P, **Souza P**. (2017). Effects of reverberation, background talker number, and compression release time on signal-to-noise ratio. *Journal of the Acoustical Society of America*, 142, EL130.
- Hoover E, Gallun F, **Souza P**. (2017). Auditory and cognitive factors associated with speech-in-noise complaints following mild traumatic brain injury. *Journal of the American Academy of Audiology*, 28, 325-339.
- Shen J, Anderson M, Arehart K, **Souza P**. (2016). Using cognitive screening tests in audiology. *American Journal of Audiology*, 25, 319-331.
- Reinhart P, **Souza P**. (2016). Intelligibility and clarity of reverberant speech: Effects of wide dynamic range compression release time and working memory. *Journal of Speech, Language and Hearing Research*, 59, 1543-1554.
- Shen J, Wright R, **Souza P**. (2016). On older listeners' ability to perceive dynamic pitch. *Journal of Speech, Language and Hearing Research*, 59, 572-82.
- Reinhart P, **Souza P**, Gallun F, Srinivasan N. (2016). Effects of reverberation and compression on consonant identification in individuals with hearing impairment. *Ear and Hearing*, 37, 144-52.

- Ohlenforst B, MacDonald E, **Souza P.** (2016). Exploring the relationship between working memory, compressor speed and background noise characteristics. *Ear and Hearing*, 37, 137-43
- Davies-Venn E, Nelson P, **Souza P.** (2015). Comparing auditory filter bandwidths, spectral ripple detection, spectral ripple discrimination and speech recognition: normal and impaired hearing. *Journal of the Acoustical Society of America*, 138, 492-503.
- Hoover E, Pasquesi L, **Souza P.** (2015). Comparison of clinical and conventional gap detection tests. *Journal of the American Academy of Audiology*, 26, 540-6.
- Souza P,** Arehart K. (2015). Robust relationship between reading span and speech recognition in noise. *International Journal of Audiology*, 54, 705-713.
- Arehart K, **Souza P,** Kates J, Lunner T, Pedersen M. (2015). Relationship among signal fidelity, hearing loss, and working memory for digital noise suppression. *Ear and Hearing*, 36, 505-516.
- Souza P,** Arehart K, Shen J, Anderson M, Kates J. (2015). Working memory and intelligibility of hearing-aid processed speech. *Frontiers in Psychology*, May 7;6, 526. doi: 10.3389.
- Charaziak K, **Souza P,** Siegel J. (2015). Exploration of stimulus-frequency otoacoustic emission suppression tuning in hearing-impaired listeners. *International Journal of Audiology*, 54, 96-105.
- Souza P,** Wright R, Blackburn M, Hoover E, Gallun F. (2015). Sensitivity to temporal and spectral cues in listeners with hearing loss. *Journal of Speech, Language and Hearing Research*, 58, 520-534.
- McCloy D, Wright R, **Souza P.** (2015). Talker versus dialect effects on speech intelligibility: a symmetrical study. *Language and Speech*, 58, 371-386.
- Souza P,** Sirow L. (2014). Relating working memory to compression parameters in clinically-fit hearing aids. *American Journal of Audiology*, 23, 394-401.
- Davies-Venn E, **Souza P.** (2014). The role of spectral resolution, working memory, and audibility in explaining variance in susceptibility to temporal envelope distortion. *Journal of the American Academy of Audiology*, 25, 592-604.
- McCloy D, Wright R, **Souza P.** (2014). Modeling intrinsic intelligibility variation: vowel-space size and structure. Proceedings of Meetings on Acoustics, POMA 18, 060007 (2014).
- Kates J, Arehart K, **Souza P** (2013). Integrating cognitive and peripheral factors in predicting hearing-aid processing effectiveness. *Journal of the Acoustical Society of America*, 134, 4458-4469.
- Collins M, Liu C-F, **Souza P,** Taylor L, Yueh B. (2013). Hearing aid Effectiveness after Aural Rehabilitation: Individual vs. group (HEARING) trial results. *Journal of Rehabilitation Research and Development* 50(4), 585-98.
- Brennan M, Gallun F, **Souza P,** Stecker C. (2013). Temporal resolution with a prescriptive fitting formula. *Journal of the American Academy of Audiology*. Epub ahead of print, July 2013.
- Charaziak K, **Souza P,** Siegel J. (2013). Stimulus-frequency otoacoustic emission suppression tuning in humans: comparison to behavioral tuning. *Journal of the Association for Research in Otolaryngology*, 14(6), 843-62.
- Sabin A, Gallun F, **Souza P.** (2013). Acoustical correlates of performance on a dynamic range compression discrimination task. *Journal of the Acoustical Society of America* 134(3):2136-47.
- Sabin A, **Souza P** (2013). Initial development of a temporal-envelope-preserving non-linear hearing-aid-prescription using a genetic algorithm. *Trends in Amplification*, 17(2):94-107.
- Souza P,** Arehart K, Kates J, Gehani N, Croghan N. (2013). Exploring the limits of frequency compression. *Journal of Speech, Language and Hearing Research*, 56(5):1349-63.
- Souza P,** Gehani N, Wright R, McCloy D. (2013). The advantage of knowing the talker. *Journal of the American Academy of Audiology*, 24(8):689-700.
- Sirow L, & **Souza P.** (2013). Selecting the optimal signal processing for your patient. *Audiology Practices*, 5, 25-29.
- Rosen S, Souza P, Ekelund C, Majeed A. (2013). Listening to speech in a background of other talkers: effects of talker number and noise vocoding. *Journal of the Acoustical Society of America*, 133:2431-43.
- Arehart K, Souza P, Kates J, Baca R. (2013). Working memory, age and hearing loss: susceptibility to hearing aid distortion. *Ear and Hearing* 34:251-60.

- Hoover EC, Souza PE, Gallun FJ. (2012). The consonant-weighted Envelope Difference Index (cEDI): a proposed technique for quantifying envelope distortion. *Journal of Speech, Language and Hearing Research* 55:1802-6.
- Charaziak K, Souza P, Siegel J. (2012). Time-efficient measures of auditory frequency selectivity. *International Journal of Audiology*, 51, 317-25.
- Souza P, Hoover E, Gallun F. (2012). Application of the Envelope Difference Index to spectrally-sparse speech. *Journal of Speech, Language and Hearing Research*, 55:824-37
- Souza P, Wright R, Bor S. (2012). Consequences of broad auditory filters for identification of multichannel-compressed vowels. *Journal of Speech, Language and Hearing Research* 55:474-86.
- Wright R, Souza P. (2012). Comparing identification of standard and regionally-valid vowels. *Journal of Speech, Language and Hearing Research*, 55:182-93.
- Hoover E, Souza P, Gallun F. (2011). Relationship between amplitude modulation in psychophysical tasks and speech in listeners with normal and impaired hearing. Proceedings of Meetings on Acoustics, POMA 12, 050009 (2011).
- Lee J-M, Souza P, Kwon B-J, Poling G. (2011). Dynamic range compression effects on modulation detection interference. Proceedings of Meetings on Acoustics, POMA 12, 050008 (2011).
- Liu C-F, Collins M, Souza P, Yueh B. (2011). Long-term cost effectiveness of screening strategies for hearing loss. *Journal of Rehabilitation Research and Development*, 48:235-43.
- Arehart K, Souza P, Miller C, Muralimanohar R. (2011). Effects of age on concurrent vowel perception in acoustic and simulated electro-acoustic hearing. *Journal of Speech, Language and Hearing Research* 54(1):190-210.
- Souza P, Arehart K, Muralimanohar R, Miller C. (2011). Effects of age on F0-discrimination and intonation perception in acoustic and simulated electroacoustic hearing. *Ear and Hearing* 32(1):75-83.
- Yueh B, Collins M, Souza P, Boyko E, Loovis C, Heagerty P, Liu C-F, Hedrick S. (2010). Long-term effectiveness of screening for hearing loss: The screening for auditory impairment-which hearing assessment test (SAI-WHAT) randomized trial. *Journal of the American Geriatrics Society* 58(3):427-34.
- Souza P, Gallun F. (2010). Effect of amplification on consonant modulation spectra. *Ear and Hearing*, 31(2):268-76.
- Collins M, Souza P, Liu C-F, Heagerty P, Antmann D, Yueh B. (2009). Hearing aid effectiveness after aural rehabilitation – Individual versus group (HEARING) trial: RCT design and baseline characteristics. *BioMed Central Health Services Research* 9:233.
- Souza P, Rosen S. (2009). Effects of envelope bandwidth on the intelligibility of sine- and noise-vocoded speech. *Journal of the Acoustical Society of America* 126:792-805.
- Davies-Venn E, Souza P, Brennan M, Stecker C. (2009). Effects of audibility and multichannel wide dynamic range compression on consonant recognition for listeners with severe hearing loss. *Ear and Hearing* 30:494-504.
- Brennan M, Souza P. (2009). Effects of expansion on consonant recognition and consonant audibility. *Journal of the American Academy of Audiology* 20:119-127.
- Won J-H, Schimmel S, Drennan W, Souza P, Atlas L, Rubinstein J. (2008). Improving performance in noise for hearing aids and cochlear implants using coherent modulation filtering. *Hearing Research* 239:1-11.
- Bor S, Souza P, Wright R. (2008). Multichannel compression: Effects of reduced spectral contrast on vowel identification. *Journal of Speech Language and Hearing Research* 51:1315-27.
- Gallun F, Souza P. (2008). Exploring the role of the modulation spectrum in phoneme recognition. *Ear and Hearing* 29:800-13.
- Davies-Venn E, Souza P, Fabry D. (2008). Speech and music quality ratings for linear and non-linear hearing aid circuitry. *Journal of the American Academy of Audiology* 18:688-699.

- Souza P, Boike K, Witherell K, Tremblay K. (2007). Prediction of speech recognition from audibility in older listeners with hearing loss: Effects of age, amplification, and background noise. *Journal of the American Academy of Audiology* 18:54-65.
- Collins M, Souza P, Yueh B, Styer S. (2007) Effectiveness of Group versus Individual Hearing Aid Visits. *Journal of Rehabilitation Research and Development*, 44(5):739-50.
- Billings C, Tremblay K, Souza P, and Binns M. (2007). Effects of hearing aid amplification and stimulus intensity on cortical auditory evoked potentials. *Audiology and Neurootology* 12:234-46.
- Jenstad L, Souza P. (2007) Temporal envelope changes of compression and speech rate: The combined effects on recognition for older adults. *Journal of Speech and Hearing Research*, 50(5):1123-38.
- Yueh B, Collins MP, Souza PE, Boyko EJ, Loovis CF, Heagerty PJ, Liu C-F, Fausti SA, Hedrick C. (2007). Screening for Auditory Impairment-Which Hearing Assessment Test (SAI-WHAT): RCT Design and Baseline Characteristics. *Contemporary Clinical Trials* 28:303-15.
- Souza P, Boike K. (2006). Combining temporal cues across channels: Effects of age and hearing loss. *Journal of Speech, Language and Hearing Research* 49:138-49.
- Caldwell M, Souza P, Tremblay K. (2006). Effect of probe tube insertion depth on spectral measures of speech. *Trends in Amplification* 10(3):145-154.
- Souza P, Jenstad L, Boike K. (2006). Measuring the acoustic effects of compression amplification on speech in noise. *Journal of the Acoustical Society of America* 119:41-44.
- Tremblay, K, Kalstein L, Billings C, Souza, P. (2006). The neural representation of consonant-vowel transitions in adults who wear hearing aids. *Trends in Amplification* 10(3):155-162.
- Tremblay K, Billings C, Friesen L, Souza P. (2006). The neural representation of amplified speech sounds. *Ear and Hearing* 27:93-103.
- Souza P, Jenstad L, Folino R. (2005). Use of amplification strategies in severe loss. *Ear and Hearing* 26:120-131.
- Jenstad L, Souza P. (2005). Quantifying the effect of compression hearing aid release time on speech acoustics and intelligibility. *Journal of Speech, Language and Hearing Research* 48:651-667.
- Yueh B, McDowell J, Collins M, Souza P, Loovis C, Deyo R. (2005). Development and validation of the Effectiveness of Auditory Rehabilitation (EAR) scale, *Archives of Otolaryngology* 131:851-6.
- Tremblay KL, Piskosz M, Souza P. (2003). Effects of age and age-related hearing loss on the neural representation of speech-cues. *Clinical Neurophysiology* 114:1332-1343.
- Souza P, Tremblay K, Boike K. (2003). Effects of decreased audibility produced by high-pass maskers in younger and older adults. *Journal of American Academy of Audiology* 14:427-433.
- Tremblay K, Piskosz M, Souza P. (2002). Aging alters the neural representation of speech-cues. *NeuroReport* 13:1865-1870.
- Yueh B, Souza P, McDowell J, Sarubbi MB, Loovis CF, Hedrick SC, Ramsey SD, Deyo RA. (2001). Randomized trial of amplification strategies. *Archives of Otolaryngology—Head and Neck Surgery* 127:1197-1204.
- Souza P, Kitch V. (2001). Effect of preferred volume setting on speech audibility for linear peak clipping, compression limiting, and wide dynamic range compression amplification. *Journal of the American Academy of Audiology* 12:415-422.
- Souza P, Kitch V. (2001). The contribution of amplitude envelope cues to sentence identification in young and aged listeners. *Ear and Hearing* 22:112-119.
- Souza P, Yueh B, Sarrubi M, Loovis C. (2000). Fitting hearing aids with the Articulation Index: Impact on hearing aid effectiveness. *Journal of Rehabilitation Research and Development* 37:473-481.
- Souza P, Bishop R. (2000). Improving audibility with nonlinear amplification for listeners with high frequency loss. *Journal of the American Academy of Audiology* 11:214-223.
- Boike K, Souza P. (2000). Effect of compression ratio on speech recognition and speech-quality ratings with wide-dynamic range compression amplification. *Journal of Speech, Language, and Hearing Research* 43:456-468.
- Souza P. (2000). Older listeners' use of temporal cues altered by nonlinear amplification. *Journal of Speech, Language & Hearing Research* 48:661-674.
- Souza P, Bishop R. (1999). Improving speech audibility with wide-dynamic range compression in listeners with severe sensorineural loss. *Ear and Hearing* 20:461-470.

- Souza P, Turner C. (1999). Quantifying the contribution of audibility to recognition of compression-amplified speech. *Ear and Hearing* 20:12-20.
- Souza P, Turner C. (1998). Multichannel compression, temporal cues and audibility. *Journal of Speech, Language and Hearing Research* 41:315-326.
- Souza P, Turner C. (1996). Effect of single-channel compression on temporal speech information. *Journal of Speech and Hearing Research* 39:901-911.
- Souza P, Hoyer W. (1996). Age-related hearing loss: Implications for counseling. *Journal of Counseling and Development* 74:652-655.
- Turner C, Souza P, Forget L. (1995). Use of temporal envelope cues in speech recognition by normal and hearing-impaired listeners. *Journal of the Acoustical Society of America* 97:2568-2576.
- Souza P, Turner C. (1994). Masking of speech in young and elderly hearing-impaired listeners. *Journal of Speech and Hearing Research* 37:655-661.
- Turner C, Horwitz A, Souza P. (1994). Forward- and backward-masked intensity discrimination measured using forced-choice and adjustment procedures. *Journal of the Acoustical Society of America* 96:2121-2126.

Invited Presentations

- Souza P. (2020). The ear is connected to the brain: Recent research on hearing and cognition. Joint Defense Veterans Audiology Conference, Rosemont, IL.
- Souza P. (2020). Implementing cognitive screening in the audiology clinic. Joint Defense Veterans Audiology Conference, Rosemont, IL.
- Souza P, Rallapalli V. (2020). Cognition for clinicians: an overview and suggestions for including cognitive screening in our practice. Illinois Speech and Hearing Association, Rosemont, IL.
- Souza P, Shen J, Rallapalli V. (2019). Cognition in the clinic: Knowledge and tools for audiology practice. American Speech-Language-Hearing Association, Orlando, FL.
- Gallun F, Seitz A, Souza P, Calundruccio L, Lelo de Larrea-Mancera E, Jakien K, Koerner, T. (2019). Flipping the laboratory: Clinical research tools for bringing psychoacoustical testing to the patient. Cognitive neuroscience of auditory and cross-modal perception, Košice, Slovakia
- Souza P, Rallapalli V, Shen J. (2019). Cognition in the clinic: should cognitive screening be part of the clinical battery? Illinois Academy of Audiology, Naperville, IL.
- Souza P. (2018). Cognition and hearing: Should this be part of my clinical practice? Audiology Online.
- Souza P, Gallun F, Wright R. (2018). Individualized hearing treatment: the path from laboratory studies to clinical services. University of South Florida, Tampa, FL.
- Souza P. (2018). Hearing loss and the aging population. Ohio Speech-Language-Hearing Association Convention, Columbus, OH.
- Souza P. (2018). Does cognitive ability affect hearing aid benefit? Evidence from laboratory and clinical studies. Speech-Language Pathology and Audiology: Research to Practice, Amherst, MA.
- Souza P, Shen J. (2018). Building cognition into audiology practice (workshop), Duke Medical Center, Durham, NC.
- Arehart K, Souza P. (2017). Individual differences in response to hearing aid signal processing. Palm Springs Hearing Seminars, Palm Springs, CA.
- Arehart K, Souza P, Kates J. (2017). Quantifying the relationship between listener response and amount of hearing aid signal processing. International Conference on Cognitive Hearing Science for Communication, Linköping University, Sweden.
- Souza P. (2017). Cognition and hearing aids: What should clinicians know? Audiology 2017: Cutting-edge Perspectives in Service Delivery for Older Adults, Online.
- Thompson C, Roberts M, Souza P, Martin-Harris B. (2016). Obtaining external funds to support your research: Keys to successful grant writing. American Speech-Language-Hearing Association, Philadelphia, PA.

- Souza P, Arehart K. (2015). Using frequency lowering: why, when, and for whom? A review of current evidence. Phonak Adult Care Conference, Phoenix, AZ.
- Souza P, Hoover E, Gallun F. (2015). Hearing assessment and management in adults with history of mild traumatic brain injury. Testing, tools and treatment: Innovations in science and practice. Evanston, IL.
- Souza P. (2014). Patient factors and variability in hearing aid outcomes. Michigan Audiology Coalition conference, East Lansing, MI.
- Souza P, Shen J. (2014). The ear is connected to the brain: aging and cognition in the audiology clinic. North Carolina Speech, Hearing and Language Association conference, Raleigh, NC.
- Souza P. (2014). Understanding and managing severe hearing loss. Audiology Online.
- Souza P, Arehart K (2014). Is it me, or is it my hearing aid? The role of patient factors when listening under adverse conditions. Institute for Hearing Research, Nottingham, UK.
- Souza P (2014). Improving audibility is the necessary foundation for improving speech understanding. Alexander Graham Bell Research Symposium, Orlando, FL.
- Souza P. (2013). Hearing aids, cognition and communication: Treating the whole patient. Canadian Audiology Association, St. John's, Newfoundland, Canada.
- Souza P (2013). Principles of cognitive testing for audiologists. Audiology Online.
- Souza, P. (2013). Using cognitive measures to direct clinical decisions. Linköping, Sweden
- Souza P, Arehart K. (2013). Cognition and digital noise reduction. Eriksholm Research Center, Helsingør, Denmark.
- Souza P, Wright R. (2012). On the advantage of knowing the talker. Dept. of Speech, Hearing and Phonetic Sciences, University College London, London, UK.
- Souza P. (2012). Mind over matter: Cognitive factors in prosthesis success. Knowles Hearing Center Symposium, Evanston, IL.
- Souza, P. (2012). Recent work in aging and cognition: Making evidence-based clinical decisions. Rush University, Chicago, IL.
- Souza P (2012). Whole-patient decisions: incorporating cognitive testing when selecting hearing aids. University of Arizona, Tucson, AZ.
- Souza P. (2012). From the bottom up, and from the top down: new approaches to hearing aid fitting. Hearing Institute Atlantic Sounds+ Conference, Halifax, NS.
- Wright R, McCloy D, Souza P (2012). Exploring sources of individual variability in intelligibility. SHACS, University of Washington, Seattle, WA.
- Souza P. (2012). Incorporating cognitive tests into hearing aid decisions. Audiology Online.
- Souza P. (2011). Improving communication in noise. Hearing Loss Association of America, Northfield, IL.
- Souza P. (2011). Top-down and bottom-up approaches to hearing aid fitting. American Academy of Audiology, Chicago, IL.
- Souza P, Arehart K. (2010). Aging, auditory perception and hearing aids. AAA Academy Research Conference, San Diego, CA.
- Plante E, Souza P, Kiran S. (2010). Forging successful research collaborations. ASHA Lessons for Success, Gaithersburg, MD.
- Souza P, Arehart K. (2009). Amplification technologies and speech understanding in older adults. Aging and Speech Communication, Bloomington, IN.
- Souza P, Arehart K. (2009). Hearing aid features: Do older people need different things? Hearing Care for Adults, Chicago, IL.
- Souza P. (2009). The importance of temporal cues in the intelligibility of speech: Implications for auditory rehabilitation. University of Colorado, Boulder, CO.
- Souza P. (2008). Fitting recommendations for severe loss. Audiology Online.
- Plante E, Goffman L, Chertoff M, Souza P. (2008). Management of an independent research program: Building researchers in the laboratory. ASHA Lessons for Success, Gaithersburg, MD.
- Souza P. (2007). Contributions of temporal cues to speech intelligibility. Speech and Hearing Sciences Colloquium, Seattle, WA.
- Souza P. (2007). Exploring the role of the modulation spectrum in phoneme recognition. Hearing Group, University of Cambridge, UK.

- Souza P. (2007). Phoneme identification using the modulation spectrum. Speech science group, University College London.
- Souza P. (2007). It's all in your ears, but is it the hearing aid or the hearing loss? National Center for Rehabilitative Auditory Research, Portland, OR.
- Souza P. (2007). Translating compression research into clinical practice. Audiology Online.
- Souza P, Armstrong S. (2006). Compression for clinicians workshop. Tempe, AZ.
- Souza P. (2006). The psychoacoustics of aging: Considerations for amplification. Amplification and Aging, Chicago, IL.
- Souza P. (2005). Using acoustic analysis to assess hearing aid benefit. Prentice Bloedel Research Day, Seattle, WA.
- Souza P. (2005). Beyond hearing aids: Issues associated with treating the geriatric patient. National Center for Rehabilitative Audiology Research, Portland, OR.
- Souza P. (2005). Hearing aid update: Matching technology to your communication needs. Ears, Hearing and Beyond, Seattle, WA.
- Souza P. (2003). Speech via advanced-technology hearing aids. Oticon Audiology Summer Camp, Keystone, CO.
- Souza P. (2003). Subjective evaluation of hearing aid benefit. Oticon Audiology Summer Camp, Keystone, CO.
- Souza P. (2002). Developing a successful audiology research program. American Academy of Audiology annual convention, Philadelphia, PA.
- Souza P, Pichora-Fuller K. (2001). Understanding speech perception in older listeners. Eriksholm Workshop on Candidature and Management of Hearing Aid Fitting: Special Needs of the Elderly. Copenhagen, Denmark.
- Souza P. (1999). Hearing aid technology. Bloedel Hearing Research Symposium, Seattle, WA.
- Souza P. (1999). Use of new hearing aid technology by elderly adults. American Federation for Aging Research, Santa Barbara, CA.
- Souza P. (1999). Improving audibility with wide-dynamic range compression. International Hearing Aid Conference, Iowa City, IA.
- Souza P. (1997). Future trends in hearing aid technology and research in amplification. Presented at the Bloedel Hearing Research Symposium, Seattle, WA.
- Souza P. (1997). Understanding compression: what really happens to the speech signal? Presented at the American Academy of Audiology convention, Ft. Lauderdale, FL.
- Souza P. (1997). Is this hearing aid really working? Hearing aid benefit measures. Presented as part of the University of Washington Resident Didactic series, Seattle, WA.
- Souza P. (1998). Understanding compression: what does new technology mean for audiologists? Children's Hospital, Seattle, WA.
- Souza P. (1998). Audiometric characteristics and hearing aid selection. Washington Society for Audiology annual convention, Seattle, WA.

Contributed Presentations

- Fulton B, Turton L, Souza P, Stropahl M, Gailey L, Timmer B (2021, accepted). What is best practice for adults with severe and profound hearing loss? Audiology Australia (online conference).
- Rallapalli V, Freyman R, Souza P. (2021). Acoustic effects of combined microphone directionality and WDRC amplification. American Auditory Society (online conference).
- Ellis G, Souza P, Santurette S, Ng E. (2021). Preserving the speech amplitude envelope: Effects of different compression algorithms. American Auditory Society (online conference).
- Ellis G, Souza P. (2020). Effects of hearing aid processing on speech intelligibility in virtual restaurant settings. Acoustical Society of America (online conference).
- Stori D, Bradlow A, Souza P. (2020). Varying intelligibility and linguistic complexity in sentence recognition in noise: Insights from older listeners. Acoustical Society of America (online conference).

- Robertson E, Marks K, Van Santen F, Souza P (2020). Utility of brief working memory tests for predicting speech perception in noise. American Speech-Language-Hearing Association (conference cancelled).
- Rallapalli V, Souza P (2020). Preference for combined hearing aid signal processing. American Speech-Language-Hearing Association (Designated as a Meritorious Poster Submission for proposals judged by the Convention Program Committee to show extraordinary, exceptional, and innovative work; conference cancelled).
- Marks K, Ellis G, Souza P. (2020). Adult remote microphone benefit and candidacy. American Academy of Audiology (online conference).
- Ellis G, Robinson K, Souza P. (2020). The effect of dereverberation technology on speech reception in a realistic listening environment. American Academy of Audiology (online conference).
- Ellis G, Souza P. (2020). Effects of hearing aid processing and environmental factors in virtual restaurants. American Auditory Society, Scottsdale, AZ.
- Ellis G, Gallun F, Souza P. (2020). Modifying the Spectral Correlation Index for use with envelope-distorted speech. American Auditory Society, Scottsdale, AZ.
- Anderson, M, Arehart K, Chon SH, Harvey LO, Kates JM, McNichols EB, Lundberg E, Souza P, Rallapalli V. (2020). Effects of noise type on speech quality ratings in older adults with hearing loss. Aging and Speech Communication, Tampa, FL.
- Stori D, Souza P, Bradlow A. (2019). Recognizing foreign-accented speech in noise: Disentangling the effects of talker intelligibility, linguistic complexity and prosodic structure realization. Psychonomics, Montreal, QC.
- Burleson A, Marks K, Souza P. (2019). Hearing impairment and reverberation preference: Results from a virtual sound space. Acoustical Society of America, Louisville, KY.
- Ellis G, Souza P. (2019). Exploring the relationship between sound localization and individual use of spectral and temporal cues among hearing-impaired listeners. Acoustical Society of America, Louisville, KY.
- Gallun F, Wright R, Souza P. (2019). Predicting speech-cue weighting in older people with impaired hearing. Acoustical Society of America, Louisville, KY.
- Rallapalli V, Ellis G, Souza P. (2019). Effect of directionality, compression, and working memory on speech recognition. American Auditory Society, Scottsdale, AZ.
- Souza P, Gallun F, Wright R, Marks K, Zacher P. (2019). Does the speech cue profile affect response to temporal distortion? American Auditory Society, Scottsdale, AZ.
- Shen J, Sherman M, Souza P. (2019). The effect of test administration methods on cognitive screening results of older individuals with hearing loss. American Auditory Society, Scottsdale, AZ.
- Rallapalli V, Whittaker S, Souza P. (2019). Effect of frequency lowering fitting method on speech intelligibility. American Academy of Audiology, Columbus, OH.
- Black S, Souza P. (2019). Survey of cognitive screening in audiology. American Academy of Audiology, Columbus, OH.
- Durkin K, Rallapalli V, Arehart K, Anderson M, Souza P, Mullervy S. (2019). Comparison of hearing aid output from initial fit to final fit in the clinical population. American Academy of Audiology, Columbus, OH.
- Stori D, Bradlow A, Schwartzer S, Souza P. (2018). The role of talker intelligibility in native and foreign-accented sentence speech reception thresholds: Insights from the Hearing In Noise Test (HINT). Psychonomics, Vancouver, CA.
- Shen J, Rallapalli V, Souza P. (2018). Effects of multichannel compression on spectral contrast of vowels processed by real hearing aids. International Hearing Aid Conference, Tahoe City, CA.
- Anderson M, Rallapalli V, Kates J, Souza P, Arehart K. (2018). Evaluating the impact of methodology on calculating signal modification resulting from hearing aid processing. International Hearing Aid Conference, Tahoe City, CA.
- Rallapalli V, Anderson M, Kates J, Sirow L, Arehart K, Souza P. (2018). Quantifying the range of signal modification in clinically-fit hearing aids. International Hearing Aid Conference, Tahoe City, CA.

- Miller J, Watson C, Leek M, Wark D, Souza P, Gordon-Salant S, Ahlstrom J, Dubno J. (2018). Aided sentence perception as related to the identification of syllable constituents and the use of context. International Hearing Aid Conference, Tahoe City, CA.
- Cornwell T, Woodward J, Wu M, Dhar S, Siegel J, Souza P, Gordon K. (2018). The effects of hearing loss on gait stability in older adults. Annual meeting of the American Society of Biomechanics, Rochester, MN.
- Rallapalli V, Mueller A, Souza P. (2018). Survey of hearing aid signal processing features across manufacturers. American Academy of Audiology, Nashville, TN.
- Rallapalli V, Welles R, Anderson M, Arehart K, Souza P. (2018). Hearing aid compression: Product vs. prescription. American Academy of Audiology, Nashville, TN.
- Stori D, Bradlow A, Souza P (2018). Sentence recognition in noise: The interplay between talker intelligibility, familiarity, and linguistic complexity. Acoustical Society of America, Minneapolis, MN.
- Gallun F, Molis M, Jakien K, Kampel S, Seitz A, Stavropoulos T, Eddins D, Hoover E, Bell K, Diedesch A, Souza P, Sherman M, Calundruccio L, Xue G, Sebena R, Srinivasan N. (2018). Portable Automated Rapid Testing (PART) measures for auditory research. Acoustical Society of America, Minneapolis, MN.
- Reinhart P, Zahorik P, Souza P. (2018). Effects of hearing aid digital noise reduction in reverberant environments. American Academy of Audiology, Nashville, TN.
- Ellinger R, Gallun F, Souza P (2018). Use of spectral and temporal information in speech. Illinois Speech-Language-Hearing Association, Rosemont, IL.
- Hoffman-Williamson CP, Reinhart P, Souza P. (2018). The intelligibility and clarity of reverberant speech using a multi-loudspeaker and earphone-based virtual acoustic simulation. Illinois Speech-Language-Hearing Association, Rosemont, IL.
- Anderson M, Arehart K, Schoof T, Souza P. (2017). Variability in hearing aid outcomes in older adults: Outcome measures from a clinical trial. Aging and Speech Communication, Tampa, FL.
- Shen J, Souza P. (2017). Do older individuals with hearing loss benefit from dynamic pitch for speech recognition in speech maskers? Aging and Speech Communication, Tampa, FL.
- Reinhart P, Zahorik P, Souza P. (2017). The relationship between hearing aid compression and working memory under realistic reverberant conditions. OVERHEAR: Real-world assessment of hearing aids and listening behavior, London, UK.
- Stori D, Bradlow A, Souza P. (2017). Sentence recognition in noise: Effects of talker intelligibility and linguistic complexity. Psychonomics Society, Vancouver, Canada.
- Reinhart P, Zahorik P, Souza P (2017). The interaction between reverberation and digital noise reduction in hearing aids: Acoustic and behavioral effects. Acoustical Society of America, Boston, MA.
- Souza P, Wright R, Gallun F, Reinhart P, Ellinger R. (2017). Reliability and repeatability of the speech cue profile. American Auditory Society, Scottsdale, AZ.
- Shen J, Souza P (2017). Does dynamic pitch aid older listeners' speech recognition in speech maskers? American Auditory Society, Scottsdale, AZ.
- Calcus A., Schoof T., Rosen S, Shinn-Cunningham B, Souza P. (2017). Isolating the informational component of speech-on-speech masking. Speech Perception in Noise workshop, Oldenburg, Germany.
- Shen J, Souza P. (2017). The relationship between cognitive functioning and hearing ability in older adults. IAGG World Congress of Gerontology and Geriatrics, San Francisco, CA.
- Schoof T, Calcus A, Rosen S, Shinn-Cunningham B, Souza P. (2016). Isolating the informational component of speech-on-speech masking. Acoustical Society of America, Honolulu, HI.
- Reinhart P, Zahorik P, Souza P. (2016). The role of modulation characteristics on the interaction between hearing aid compression and signal-to-noise ratio. Acoustical Society of America, Honolulu, HI.
- Souza P, Schoof T, Anderson M, Arehart K. (2016). Variability in hearing aid outcomes in older adults: Clinical trial design and preliminary results. International Hearing Aid Conference, Tahoe City, CA.

- Arehart K, Anderson M, Muralimanohar R, Kates J, Souza P. (2016). Quantitative benchmarks for the evaluation of signal processing in commercial hearing devices. International Hearing Aid Conference, Tahoe City, CA.
- Shen J, Souza P. (2016). Do older listeners with hearing loss benefit from dynamic pitch for speech recognition in noise? Hearing Across the Lifespan, Cernobbio, Italy.
- Anderson M, Arehart K, Souza P. (2016). Survey of current practice in the fitting of advanced signal processing algorithms. American Academy of Audiology, Phoenix, AZ.
- Shen J, Souza P (2016). Effects of dynamic pitch on older listeners' speech recognition in noise. American Auditory Society, Scottsdale, AZ.
- Ward K, Shen J, Souza P, Grieco-Calub T. (2016). Comparing behavioral measures of listening effort across the lifespan. American Auditory Society, Scottsdale, AZ.
- Souza P, Shen J, Schoof T. (2015). Does noise reduction reduce listening effort for older hearing-aid users? Aging and Speech Communication conference, Bloomington, IN.
- Ward K, Shen J, Souza P, Grieco-Calub T. (2015). The hidden cost of listening: Age-related differences in cognitive capacity impact listening effort during degraded speech recognition. Aging and Speech Communication conference, Bloomington, IN.
- Reinhart P, Souza P, Srinivasan N, Gallun F. (2015). Working memory and communication in reverberant environments. Cognitive Hearing Science, Linköping, Sweden.
- Hoover E, Blackburn M, Souza P (2015). Fast frequency selectivity measures in listeners with severe hearing loss. Acoustical Society of America, Pittsburgh, PA.
- Ward KM, Shen J, Souza PE, Grieco-Calub TM. (2015). Verbal response time in children systematically varies with the spectral resolution of speech. Acoustical Society of America, Pittsburgh, PA.
- Reinhart P, Souza P. (2015). Music processing in hearing aids: optimizing compression. American Academy of Audiology, San Antonio, TX.
- Reinhart P, Souza P. (2015). Coping with reverberation: characterizing patient disability in reverberant environments. American Academy of Audiology, San Antonio, TX.
- Shen J, Souza P, Anderson M, Arehart K, Kates J, Muralimanohar R. (2015). Can cognitive screening tests explain recognition of distorted speech? American Auditory Society, Scottsdale, AZ.
- Reinhart P, Souza P, Srinivasan N, Gallun F (2015). Acoustic modeling of reverberant speech processed by hearing aids. American Auditory Society, Scottsdale, AZ.
- Ward K, Shen J, Souza P, Grieco-Calub T. (2015). Age-related differences in listening effort during degraded speech recognition. American Auditory Society, Scottsdale, AZ.
- Shen J, Wright R, Souza P. (2014). Effect of formant characteristics on older listeners' dynamic pitch perception. Acoustical Society of America, Indianapolis, IN.
- Souza P, Arehart K, Shen J, Kates J, Muralimanohar R. (2014). Individual sensitivity to distortion from combined signal processing. International Hearing Aid Conference, Tahoe City, CA.
- Reinhart P, Souza P, Srinivasan N, Gallun F. (2014). The effects of WDRC and reverberation on syllable identification. International Hearing Aid Conference, Tahoe City, CA.
- Hoover E, Souza P, Gallun F. (2014). Degraded temporal processing after traumatic brain injury. Acoustical Society of America, Providence, RI.
- Srinivasan NK, Gallun F, Souza P, Reinhart P. (2014). Combined effects of amplitude compression and reverberation on speech modulations. Acoustical Society of America, Providence, RI.
- Ohlenforst B, Souza P, MacDonald E. (2014). Interaction of working memory, compressor speed and background noise characteristics. American Auditory Society, Scottsdale, AZ.
- Souza P, Blackburn M, Hoover E, Gallun F. (2014). Characterizing severe hearing loss. American Auditory Society, Scottsdale, AZ.
- Kates J, Arehart K, Souza P, Anderson M, Portnuff C. (2014). Quantifying processing interactions in hearing aids. American Auditory Society, Scottsdale, AZ.
- Blackburn M, Souza P, Gallun F, Hoover E. (2014). Clinical recommendations for measuring speech in noise in adults with hearing loss. American Academy of Audiology, Orlando, FL.
- Hoover E, Souza P, Gallun FJ. (2014). Objective confirmation of auditory complaints after traumatic brain injury. American Academy of Audiology, Orlando, FL.

- Souza P, Arehart K, Miyake A, Flowers S. (2013). Understanding the relationship between working memory and speech in noise. Aging and Speech Communication, Bloomington, IN.
- Souza P, Arehart K. (2013). The relationship between working memory and communication in noisy environments. Gerontological Society of America, New Orleans, LA.
- Hoover E, Pasquesi L, Souza P. (2013). Comparison of clinical and traditional temporal resolution tests. American Speech-Language-Hearing Association, Chicago, IL.
- Suveg L, Sabin A, Souza P. (2013). Exploration of a novel tool for the patient-directed assessment of loudness growth. American Speech-Language-Hearing Association, Chicago, IL.
- Sabin A, Nyatepe-Coo F, Gallun F, Souza P. (2013). Sensitivity to dynamic range compression in listeners with impaired hearing. American Auditory Society, Scottsdale, AZ.
- Arehart K, Souza P, Lunner T, Syskind Pedersen M, Kates JM. (2013). Relationship between distortion and working memory for digital noise-reduction processing in hearing aids. Acoustical Society of America, Montreal, Quebec.
- Sabin A, Gallun F, Souza P. (2012). Sensitivity to dynamic range compression is predictable by distances between modulation spectra. International Hearing Aid Conference, Tahoe City, CA.
- Souza P, Sirow L. (2012). Incorporating cognitive tests in the clinic. American Academy of Audiology, Boston, MA.
- Gallun F, Hoover E, Sabin A, Souza P. (2012). Acoustical analyses of high-frequency modulation in vocoded speech. American Auditory Society, Scottsdale, AZ.
- Souza P, Arehart K, Kates J, Croghan N, Gehani N, Muralinomahar R, Hoover E. (2011). Age, hearing loss and cognition: Susceptibility to hearing aid distortion. Aging and Speech Communication, Bloomington, IN.
- Hoover E, Souza P, Gallun F. (2011). A role for modulation sensitivity in age-related declines in speech understanding? Aging and Speech Communication, Bloomington, IN.
- Souza P, Arehart K, Kates J, Muralinomahar R, Croghan N, Hoover E. (2011). Effects of frequency compression on the intelligibility and quality of speech in noise. Acoustical Society of America, Seattle, WA.
- Lee J-M, Souza P, Sabin A, Polling G, Kwon B-J, Petersen C. (2011). Dynamic range compression effects on modulation detection interference. Acoustical Society of America, Seattle, WA.
- Hoover E, Souza P, Gallun F. (2011). Relationship between amplitude modulation in psychophysical tasks and speech in listeners with normal and impaired hearing. Acoustical Society of America, Seattle, WA.
- Sabin A, Wiles H, Souza P. (2011). Temporal-based nonlinear hearing aid prescription using a genetic algorithm. American Auditory Society, Scottsdale, AZ.
- Davies-Venn E, Souza P, Nelson P. (2011). Evaluating the relationship between three different measures of spectral resolution and speech recognition. American Auditory Society, Scottsdale, AZ.
- Souza P, Meredith M, Hoover E. (2011). Recognition of child, male and female speech with simulated electro-acoustic hearing. American Auditory Society, Scottsdale, AZ.
- Hoover E, Souza P, Gallun F. (2011). Relationship between modulation frequency discrimination thresholds and benefit from high rate modulations in spectrally reduced speech. American Auditory Society, Scottsdale, AZ.
- Arehart K, Souza P, Kates J, Muralinomahar R, Croghan N, Hoover E. (2011). Effects of age and cognition on perception of frequency-compressed speech. American Auditory Society, Scottsdale, AZ.
- Charaziak K, Souza P, Siegel J. (2011). Time-efficient measures of frequency selectivity. Association for Research in Otolaryngology, Baltimore, MD.
- Brennan M, Souza P, Gallun F. (2010). Do aided psychoacoustic thresholds predict aided speech recognition? American Auditory Society, Scottsdale, AZ.

- Brennan M, Souza P, Atlas L, Greenhall A. (2010). Coherent versus incoherent modulation filtering. Acoustical Society of America, Baltimore, MD.
- Gallun F, Souza P, Hoover E. (2010). Evaluating hearing aid processing with an auditory model of modulation sensitivity. Acoustical Society of America, Baltimore, MD.
- Davies-Venn E, Souza P. (2010). Effect of age and other patient factors on amplified speech scores. AAA Academy Research Conference, San Diego, CA.
- Brennan M, Gallun F, Souza P. (2010). Using psychoacoustic thresholds to improve hearing aid fittings. International Hearing Aid Conference, Tahoe City, CA.
- Davies-Venn E, Souza P. (2010). The composite effect of narrowband and broadband spectral resolution on amplified speech scores. International Hearing Aid Conference, Tahoe City, CA.
- Souza P, Hoover E, Gallun F, Brennan M. (2010). Assessing envelope distortion in clinically-fit hearing aids. International Hearing Aid Conference, Tahoe City, CA.
- Miller C, Souza P, Arehart K, Anderson M. (2009). Characterizing the abilities of older adults to perceive speech in noise. Aging and Speech Communication, Bloomington, IN.
- Brennan M, Gallun F, Souza P. (2009). Do aided amplitude modulation detection thresholds predict aided speech recognition? The Ear-Brain System: Approaches to the Study and Treatment of Hearing Loss, Portland, OR.
- Rosen S, Souza P, Ekelund C, Majeed A. (2009). Listening to speech in a background of other talkers: effects of talker number, glimpsing and noise vocoding. Workshop on Intelligibility and Quality of Speech in Noise, London, UK.
- Souza P, Gallun F, Hoover E. (2009). A comparison of modulation indices for describing amplitude-compressed speech. Acoustical Society of America, Portland, OR.
- Souza P, Hoover E, Gallun F. (2009). Consonant feature transmission in spectrally reduced and amplitude-compressed Speech. American Auditory Society, Scottsdale, AZ.
- Souza P, Gallun F. (2008). Variability of the consonant modulation spectrum across individual talkers. Canadian Acoustical Association, Vancouver, BC.
- Souza P, Gallun F. (2008). Effect of amplification on consonant modulation spectra. International Hearing Aid Conference, Tahoe City, CA.
- Bor S, Souza P, Wright R. (2008). Auditory filters and vowel errors. International Hearing Aid Conference, Tahoe City, CA.
- Arehart K, Souza P, Miller C, Muralimanohar R. (2008). Age-related deficits in F0 processing: Use of periodicity and fine-structure cues. International Hearing Aid Conference, Tahoe City, CA.
- Souza P, Rosen S. (2008). Factors affecting recognition of vocoded speech: Effect of envelope cutoff frequency and carrier type. Acoustics 2008, Paris, France.
- Wright R, Souza P, Bor S, Reed S. (2008). Consequences of regional accent differences for speech perception studies. Acoustics 2008, Paris, France.
- Brennan M, Souza P. (2008). Effect of expansion on consonant audibility and recognition. American Academy of Audiology, Charlotte, NC.
- Davies-Venn E, Souza P. (2008). Speech recognition with custom vs. uniform compression ratios. American Academy of Audiology, Charlotte, NC.
- Collins M, Souza P, Liu CF, Yueh B. (2008). Hearing Aid Effectiveness after Aural Rehabilitation - Individual vs.group (HEARING) randomized trial: Design, baseline characteristics, and preliminary results. Association of VA Audiologists, Charlotte, NC.
- Souza P, Ekelund C, Rosen S. (2008) Contributions of energetic vs. informational masking in multitalker backgrounds. American Auditory Society, Scottsdale, AZ.
- Hoover E, Gallun F, Souza P. (2008) Evaluating Strobed Temporal Integration as a model of temporal processing using spectrally reduced speech. American Auditory Society, Scottsdale, AZ.
- Gallun F, Souza P. (2008) A model of consonant confusions based on envelope modulation similarity. American Auditory Society, Scottsdale, AZ.
- Brennan M, Souza P. (2008) Is less really more? The effects of expansion on consonant recognition. American Academy of Audiology, Charlotte, NC.

- Billings C, Tremblay K, Souza P. (2007). Cortical auditory evoked potentials recorded with and without hearing aids: Effects of stimulus intensity and amplification. International Evoked Response Auditory Study Group, Bled, Slovenia.
- Souza P, Brennan M, Davies-Venn E. (2007). Using short vs. long time constants in severe loss. American Auditory Society, Tempe, AZ.
- Brennan M, Souza P, Won J-H. (2007). Effects of expansion on consonant audibility. American Auditory Society, Tempe, AZ.
- Collins M, Souza P, Yueh B. (2007). Effectiveness of group versus individual hearing aid visits. American Auditory Society, Tempe, AZ.
- Yueh B, Collins M, Souza P. (2007). Effects of depression on self-report hearing outcomes. American Auditory Society, Tempe, AZ.
- Wright R, Bor S, Souza P. (2006). Region, gender and vowel quality: a word to the wise hearing scientist. Acoustical Society of America, Honolulu, HI.
- Davies-Venn E, Souza P, Stecker C. (2006). Consonant recognition at multiple input levels for severe loss, using clinically fit linear vs. non-linear hearing aids. International Hearing Aid Research Conference, Tahoe City, CA.
- Bor S, Souza P, Wright R. (2006). Effect of Multiple Compression Channels on Vowel Identification. International Hearing Aid Research Conference, Tahoe City, CA.
- Jenstad L, Souza P, Lister A. (2006). Development of a metric for quantifying the temporal envelope of speech. International Hearing Aid Research Conference, Tahoe City, CA.
- Billings C., Tremblay K., Souza P. (2006). Effects of amplification and stimulus intensity on cortical auditory evoked potentials. American Auditory Society, Scottsdale, AZ.
- Davies-Venn E, Souza P. (2006). Consonant error patterns for severe loss: Linear vs. WDRC amplification. American Auditory Society, Scottsdale, AZ.
- Bor S, Souza P, Wright R. (2006). Multichannel compression: consequences of reduced spectral contrast for vowel identification. American Auditory Society, Scottsdale, AZ.
- Collins M, Souza P, Yueh B. (2006). Subjective hearing complaints and sentence recognition in posttraumatic stress disorder. American Auditory Society, Scottsdale, AZ.
- Jenstad L, Souza P. (2006). Wide-dynamic range compression and rapid speech. American Academy of Audiology, Minneapolis, MN.
- Billings C, Tremblay K, Souza P. (2006). Effects of amplification and stimulus intensity on cortical auditory evoked potentials. Association for Research in Otolaryngology, Baltimore, MD.
- Bor S, Wright R, Souza P. (2005). Effect of multiple compression channels on vowel spectra. Acoustical Society of America, Minneapolis, MN.
- Souza P, Atlas L, Schimmel S, Rubinstein J, Drennan W, Won J-H. (2005). Coherent modulation enhancement: Improving performance in noise for hearing aids and cochlear implants. Acoustical Society of America, Vancouver, BC.
- Souza P, Tremblay K. (2005). Combining acoustic, physiological and behavioral measures of hearing aids. American Auditory Society, Scottsdale, AZ.
- Jenstad L, Souza P. (2005). The effects of compression parameters on recognition of rapid speech. Poster presented at the American Auditory Society, Scottsdale, AZ.
- Yueh B, Collins M, Souza P, Heagerty P, Loois C, Hedrick S. (2005). Long-term effectiveness in a randomized trial of hearing loss screening. Paper presented at the American Auditory Society, Scottsdale, AZ.
- Collins M, Yueh B, Souza P, Heagerty P, Loois C, Hedrick S. (2005). Long-term effectiveness of hearing loss screening: Design and baseline characteristics. Poster presented at the American Auditory Society, Scottsdale, AZ.
- Souza P, Tremblay K, Davies-Venn E, Kalstein L. (2004). Explaining consonant errors using short-term audibility. Paper presented at the American Academy of Audiology, Salt Lake City, UT.
- Jenstad L, Souza P. (2004) The effect of release time on speech acoustics and intelligibility. Poster presented at the American Auditory Society, Scottsdale, AZ.

- Boike K, Souza P. (2004). Age effects on speech recognition in temporally complex background noise. Poster presented at the American Auditory Society, Scottsdale, AZ.
- Billings C, Tremblay K, Souza P. (2004). Neural representation of amplified speech-sounds. Poster presented at the American Auditory Society, Scottsdale, AZ.
- Yueh B, Souza P, Collins M, Boyko E, Loovis C, Heagerty P, Liu F, Fausti S, Hedrick S. (2003). The SAI-WHAT trial: Preliminary results. Department of Veterans Affairs Research Day, Seattle, WA.
- Souza P, Yueh B, McDowell J, Collins M, Loovis C, Boike K, Deyo R. (2002). Sensitivity of self-assessment questionnaires to differences in hearing aid technology. International Hearing Aid Conference, Tahoe City, CA.
- Jenstad L, Souza P. (2002). Quantifying the effect of release time from compression on the temporal cues of speech. International Hearing Aid Conference, Tahoe City, CA.
- Tremblay K, Piskosz M, Souza, P. (2002). Aging and the neural representation of speech-cues. Association for Research in Otolaryngology, St. Petersburg Beach, FL.
- Tremblay K, Piskosz M, Souza P. (2002). The effects of aging and age-related hearing loss on neural representation of speech cues. American Auditory Society, Scottsdale, AZ.
- Jenstad L, Souza P. (2002). Speech information transmitted by four amplification systems to listeners with severe hearing loss. Association for Research in Otolaryngology convention, St. Petersburg Beach, FL.
- Tremblay K, Piskosz M, Souza P. (2002). The effects of aging and age-related hearing loss on neural representation of speech cues. Association for Research in Otolaryngology convention, St. Petersburg Beach, FL.
- Souza, P, Jenstad L, Folino R. (2001). Use of new amplification strategies in listeners with severe loss. American Speech-Language-Hearing Association convention, New Orleans, LA.
- Souza P, Tremblay K, Boike K. (2000). Age-related changes in downward spread of masking as a function of masker frequency and level. Association for Research in Otolaryngology convention, St. Petersburg Beach, FL.
- Yueh B, Souza P, McDowell J, Bryant M, Loovis C, Deyo R. (2000). Quality of life in a randomized trial of amplification strategies. American Auditory Society convention, Scottsdale, AZ.
- Yueh B, Souza P, McDowell J, Bryant M, Loovis C, Ramsey S, Deyo R. (1999). Does the choice of psychometric, clinimetric, utility, or adherence outcomes influence conclusions in a hearing aid trial? Society for Medical Decision Making, Reno, NV and Robert Wood Johnson Clinical Scholars Program Meeting, Ft. Lauderdale, FL.
- Souza P, Bishop R, Kim C. (1999). Effect of audiometric characteristics on benefits of wide-dynamic range compression. American Academy of Audiology convention, Miami, FL.
- Boike K, Souza P. (1999). Comparing objective and subjective assessment of wide-dynamic range compression parameters. American Academy of Audiology annual convention, Miami, FL.
- Souza P, Boike K, Larsen J. (1998). Relationship between preferred listening level and speech recognition for linear and wide-dynamic range compression hearing aids. American Academy of Audiology annual convention, Los Angeles, CA.
- Souza P, Larsen J. (1998). Use of temporal information in recognition of amplitude-compressed speech by older adults. Acoustical Society of America annual convention, Seattle, WA.
- Souza, P. (1997). Application of the Aided Audibility Index to understanding of compressed speech. NIDCD Hearing Aid Research convention, Bethesda, MD.
- Souza P, Turner C. (1996). Effect of multichannel compression on temporal speech information. American Speech-Language-Hearing Association convention, Seattle.
- Souza P, Turner C. (1995). Effect of compression on temporal speech cues and audibility. American Speech-Language-Hearing Association convention, Orlando, FL.

- Souza P, Turner, C. (1995). Effect of compression on perception of temporal speech information by hearing-impaired listeners. Association for Research in Otolaryngology convention, St. Petersburg Beach, FL.
- Souza P, Hoyer W. (1994). The successful presbycusis: Compensating for hearing loss and aging. Second International Conference on Communication, Aging, and Health, Hamilton, Ontario.
- Turner C, Souza P, Forget L. (1994). Perception of temporal speech information by hearing-impaired listeners. Issues in Advanced Hearing Aid Research, Lake Arrowhead, CA.
- Turner C, Forget L, Souza P. (1994). Using temporal envelope cues in speech recognition: Performance of normal and hearing-impaired listeners. Association for Research in Otolaryngology meeting, St. Petersburg Beach, FL.
- Souza P, Turner C. (1992). Recovery from prior stimulation: Effects upon speech perception. Association for Research in Otolaryngology meeting, St. Petersburg Beach, FL.
- Souza P, Turner C. (1992). Masking of speech in young and elderly hearing-impaired listeners. American Speech-Language-Hearing Association convention, San Antonio, TX.
- Turner C, Horwitz A, Souza P. (1992). Forward-masked intensity discrimination measured using the method of adjustment. Acoustical Society of America meeting, New Orleans, LA.
- Turner C, Horwitz A, Souza P. (1991). Identification and discrimination of stop consonants: Formants versus spectral peaks. Ninth International Symposium on Hearing, Carcans, France.
- Turner C, Horwitz A, Souza P. (1991). Perceiving formant transitions: Formants versus spectral peaks. Association for Research in Otolaryngology meeting, St. Petersburg Beach, FL.

Research Awards

- National Institute on Deafness and Communication Disorders. *Administrative supplement to Characterizing variability in hearing aid outcomes among older adults* (principal investigator). 2019-2020. [Funded, direct costs \$236,147].
- Engineering and Physical Sciences Research Council, United Kingdom. *Environment-aware Listener-Optimized Speech Processing for Hearing Enhancement in Real Situations (E-LOSPHERES)*. (consultant; Mark Huckvale, University College London, principal investigator). 2019-2022. [Funded, direct costs £554,977]
- National Institutes on Deafness and Communication Disorders K01. *Investigating the relationship between directional microphones, compression, and working memory in realistic spatial conditions* (sponsor; Varsha Rallapalli, principal investigator). 2020-2022. [Funded, direct costs 280,314]
- The Alumnae of Northwestern University. *Understanding foreign-accented speech in noise by hearing-impaired older adults* (sponsor; Dorina Strori, postdoctoral investigator). 2018-2019. [Funded, direct costs \$2,068]
- Sonova USA, Inc. *Clinical trial of Roger adaptive digital technology* (principal investigator). 2019-2020. [Funded, direct costs \$24,756]
- National Institutes on Deafness and Communication Disorders F31. *Auditory selective attention and its relation to speech recognition in school-age children* (co-sponsor; Kristina Ward, student investigator). 2018-2020. [Funded, direct costs \$39,363]
- Knowles Hearing Center. *Foreign-accented speech-in-noise recognition: Talker intelligibility and linguistic complexity* (co-investigator; Ann Bradlow, Northwestern Linguistics, principal investigator), 2018-2020. [Funded, direct costs \$67,166].
- National Institute on Deafness and Communication Disorders R01. *Characterizing variability in hearing aid outcomes among older adults* (principal investigator). 2017-2022. [Funded, direct costs \$1,786,698].
- National Institute on Deafness and Communication Disorders R01. *Aging and speech perception in complex listening environments* (consultant; Karen Helfer, University of Massachusetts, principal investigator). 2017-2010.
- National Institute on Deafness and Communication Disorders R01, *Acoustic effects of WDRC amplification* (principal investigator), 2016-2021. [funded, direct costs \$1,250,000]

Knowles Hearing Center. *From recognition to comprehension: A framework for collaborative study* (primary investigator; Ann Bradlow, Northwestern Linguistics, co-investigator), 2016-2018. [funded, direct costs \$76,568].

Engineering and Physical Sciences Research Council, United Kingdom. *Environment-aware Listener-Optimized Binaural Enhancement of Speech (E-LOBES)*. (consultant; David Brookes, Imperial College London, principal investigator). 2015-2018. [funded, direct costs £991,040]

National Institute on Deafness and Communication Disorders F31, Individual differences with WDRC amplification in challenging environments, 2015-2017 (sponsor; Paul Reinhart, student investigator).

American Academy of Audiology Student Investigator Hearing Aid Grant. *Objective and subjective assessments of patient susceptibility to reverberation* (sponsor; Paul Reinhart, student investigator). 2015-2016 [\$5000].

Action on Hearing Loss UK. Treating communication partnerships for adults with hearing loss (principal investigator; Angela Roberts, co-investigator), 2016-2016. [not funded].

American Speech-Language-Hearing Foundation. *Subjective and objective effects of the interaction between cognition and hearing aid processing on reverberant speech* (sponsor; Paul Reinhart, student investigator). 2014-2015. [\$2000].

National Institutes of Health F32. *Ability of older adults to benefit from dynamic pitch for speech recognition in noise* (sponsor; Jing Shen, investigator). 2015-2017 [\$112,072].

Action on Hearing Loss UK. *Understanding individual ability to communicate in noise* (principal investigator; Stuart Rosen, co-investigator), 2014-2017. [not funded].

National Institute on Deafness and Communication Disorders R33. *Multi-site study of the efficacy of speech perception training for hearing aid users* (co-investigator; Charles Watson, Indiana University, principal investigator). 2013-2015, NCE to 2017. [budget to site \$247,362].

National Institute on Deafness and Communication Disorders R01. *Characterizing variability in hearing aid outcomes among older adults* (principal investigator). 2012-2017. [\$1,976,162].

Medical Research Council. Perceiving speech in single and multi-talker babble in normal and impaired hearing (co-investigator; Stuart Rosen, University College London, principal investigator). March 2011-August 2014. [£408,931]

American Academy of Audiology Student Investigator Research Grant, *Relating physiological and perceptual measures of frequency selectivity* (sponsor; Karolina Charaziak, student investigator). 2011-2012. [\$5,000]

National Institute on Deafness and Communication Disorders R01, *Acoustic effects of WDRC amplification* (principal investigator), 2010-2016. [direct costs \$1,000,000]

National Institute on Deafness and Communication Disorders R21/R33, *Multi-site study of the efficacy of speech-perception training for hearing-aid users* (consortium PI), 2010-2015. [direct costs \$2,300,108]

National Institute on Deafness and Communication Disorders F31, *Using spectral resolution to explain performance variability with severe loss* (sponsor; Evelyn Davies-Venn, student investigator). 2009- 2011. [direct costs \$61,458]

National Institute on Deafness and Communication Disorders F31, *Relationship Between Psychoacoustic Thresholds and Speech Recognition for Aided Listeners* (sponsor; Marc Brennan, student investigator). 2010- 2012. [direct costs \$82,351]

Medical Research Council, UK, *Perceiving speech in single and multi-talker babble in normal and impaired hearing* (co-investigator). 2011-2014.

National Institutes of Health, *NIH Toolbox for the Assessment of Neurological and Behavioral Function* (consultant), 2006-2011.

National Institute on Deafness and Communication Disorders R01, *Acoustic effects of WDRC amplification* (principal investigator), 2005-2010. [direct costs \$775,000]

National Institutes of Health R01, *Auditory training and neural plasticity in younger and older adults* (co-investigator; Kelly Tremblay, principal investigator), 2005-2010 [direct costs \$875,000].

Department of Veterans Affairs Health Services Research and Development Service, *The Hearing aid Effectiveness after Aural Rehabilitation (HEAR) Trial* (co-investigator; Bevan Yueh, principal investigator), 2006-2008 [direct costs \$1,066,600].

National Institute on Deafness and Communication Disorders F31, *Stimulus intensity and amplification effects on cortical evoked potentials* (sponsor). 2006-2008.

National Institute on Deafness and Communication Disorders Diversity Supplement, *Effect of WDRC in severe loss* (sponsor). October 2005- August 2007. [\$146,337].

American Academy of Audiology Student Research Forum Award for *Effect of Expansion on Consonant Recognition* (sponsor). April 2007. [\$500]

University of Washington Technology Gap Innovation Fund, *Demonstration of a hearing aid breakthrough* (co-investigator), 2005-2006 [\$50,000].

Canadian Institute of Health Research, *Effect of new hearing aid technology on speech understanding in older listeners* (sponsor). September 2001-September 2006. [\$242,500 CNDN].

Phonak AG, *Valeo trial* (principal investigator), 2004- 2005. [\$11,860]

Washington Research Foundation, *Temporal enhancement for hearing loss* (co-investigator), 2003- 2004. [\$28,058].

University of Washington Royalty Research Fund, *Linking acoustic, physiological and behavioral measures: A new technique for studying hearing aid benefit* (principal investigator), 2002- 2003. [\$25,763]

National Institute on Aging, *Age-related changes in auditory processing of amplified speech* (principal investigator), 2002- 2004. [\$50,000].

Department of Veterans Affairs Health Services Research & Development Service, *Audiology visits after screening for hearing loss: A randomized controlled trial* (co-investigator), 2001- 2005. [\$962,790]

National Institute on Deafness and Communication Disorders NRSA, *Effect of compression amplification on older listeners* (sponsor). September 2001-September 2003. [\$56,116].

American Speech-Language-Hearing Foundation, *Effect of compression release time on speech acoustics and intelligibility* (sponsor). November, 2001-October, 2002. [\$2000].

University of Washington Huckabay Teaching Fellowship, *Curriculum for clinical teaching in amplification* (sponsor), September 2000-September 2001 [\$4711].

National Organization for Hearing Research, *New techniques for selecting speech processing strategies in listeners with severe loss* (principal investigator), 2000- 2000. [\$10,000]

Tools for Transformation, *Tele-collaboration in Speech and Hearing Sciences* (co-investigator), 1999- 2001. [\$361, 935]

American Federation of Aging Research (principal investigator), *Use of new hearing aid processing strategies by elderly adults*, 1998- 1999. [Total direct costs: \$20,163]

National Institute on Aging, *Effectiveness of Auditory Rehabilitation: Instrument Validation* (co-investigator), 2000- 2001 [\$50,000]

Deafness Research Foundation, *Effect of hearing loss characteristics on benefit of compression hearing aids* (principal investigator), 1998-2000 [\$37,084]

University of Washington Royalty Research Fund, *Audiometric correlates of performance with compression amplification* (principal investigator), 1998- 2000. [\$23,443]

American Speech-Language-Hearing Foundation Student Research Grant, *Effect of compression amplification on the temporal cues of speech for hearing-impaired listeners* (principal investigator), 1995- 1996. [\$2000]

Awards and Honors

Fellow of the Acoustical Society of America, 2020

Faculty Fellow, Academic Leadership Program of the BTAA, 2020 (one of 4 faculty selected from Northwestern)

Searle Fellows Program Mentor, 2016

Fellow of the American Speech-Language-Hearing Association (ASHA), 2012

Brennan M, Souza P (2009) selected as one of the "Best of 2009" by *Hearing Journal*, 2010.

Bloedel Scholar, University of Washington, 2005-2008

Souza P, Tremblay K (2006) selected as one of the “Best in Audiology” by *Hearing Journal*, 2007
Student research forum award (sponsor), American Academy of Audiology, 2006
Souza P, Jenstad L, Folino R (2005) selected as one of the “Best in Audiology” by *Hearing Journal*, 2006
Pichora-Fuller K, Souza P (2003) selected as one of the “Best in Audiology” by *Hearing Journal*, 2004.
Graduate Mentor Award nominee, University of Washington, 2003
Souza P, Bishop R. (1999) selected as one of the “Best in Audiology” by *Hearing Journal*, 2000
Souza P, Turner C. (1998). Multichannel compression, temporal cues and audibility” Selected as one of the “Best in Audiology” by *Hearing Journal*, 1999
Souza, P.E., & Turner, C.W. (1996) selected as one of the “Best in Audiology” by *Hearing Journal*, 1997
Outstanding Teaching Assistant Award, Syracuse University, 1995
School of Education Master's Thesis Prize, Syracuse University, 1993
Graduate Fellow, Syracuse University, 1990-1991 and 1992-1993
Gilbert Tolhurst Senior Scientist Award, University of Massachusetts, 1990
University Honors Program, University of Massachusetts, 1985-1990
Alumni Scholar, University of Massachusetts, 1989
Chancellor's Award Scholarship, University of Massachusetts, 1985-1990

Editorial and Professional Service

Ad hoc reviewer, PCORI, 2019
Ad hoc reviewer, NAME Study Section, NIH, 2018
Physiology and Psychoacoustics Technical Committee of the ASA, 2016-2019
International Hearing Aid Conference Steering Committee, 2014-2016
Ad hoc reviewer, Medical Research Council (UK), 2013
ASHA Publications Board member, 2014-2016
Federal Advisory Committee Act (FACA) appointment to Scientific Merit Review Board (SMRB) for Sensory Systems/Communication, 2012-2015
Data Management Oversight Committee (DMOC) member, NIDCD, 2011-2016
Guest Section Editor, *Ear and Hearing*, 2011-2012
Associate Editor, *Journal of Speech, Language & Hearing Research*, 2011-2013
Ad hoc reviewer, AUD Study Section, NIH, 2010 & 2013
Physiology and Psychoacoustics Technical Committee of the ASA, 2009-2012
ASHA Research and Scientific Affairs Committee, 2008-2010
ASHA RSAC planning committee for “Lessons for Success” conference 2008-2012
Assistant Editor, *Journal of the American Academy of Audiology*, 2002-2006
Associate Editor, *Trends in Amplification*, 2000-2008
Section Editor for Amplification, *Ear and Hearing*, 2002-2008
AAA convention Research Pod/Poster Subcommittee, 2008
Technical co-chair, International Hearing Aid Conference, 2005-2007
Reviewer, Veteran's Administration Rehabilitation Research and Development Service, 2004-2006, 2011-13, 2016
Instructional Course review panel, American Academy of Audiology Convention, 2005
Outside reviewer, MRC Institute of Hearing Research, Nottingham UK - 5 Year Future Proposal, 2003
Reviewer, Royalty Research Fund, University of Washington, 2002
Program committee for American Speech Language Hearing Association convention, 2001
Program committee for American Academy of Audiology convention, 1999
Ad hoc reviewer for *Journal of the Acoustical Society of America*, *Ear and Hearing*, *Journal of Speech and Hearing Research*, *International Journal of Audiology*, *Journal of Language Speech and Hearing Services in the Schools*, *Audiology and Neuro-otology*, *Trends in Amplification*, *Journal of Experimental Psychology: Human Perception and Performance*

Department and University Service

At Northwestern University

CSD Chair, 2019-present
School of Communication Diversity, Equity and Inclusion Committee member, 2021-present
CSD Associate Chair, 2018-2019
Communication Sciences and Disorders Events Committee, 2017-2018
Knowles Hearing Center Management Committee, 2017-present
CSD Program review committee member, 2016-2017
Search committee chair, joint position in Neurobiology/Communication Sciences and Disorders, 2016
Clinical Research Coordination Committee (co-chair), 2015-2016
Testing, Tools and Treatment open house planning committee, 2015
Limited Submissions Advisory Committee, 2014-2017
AuD admissions committee, 2013-present
Innovations Grant review committee member, 2013
AuD program committee chair, 2011-2013; 2015-present
Search committee chair, assistant professor in audiology, 2011
Knowles Center Clinical and Educational Services Committee (co-chair), 2010-2011; member 2011-present.
Knowles Symposium Committee, 2011-2012
Search committee, Director of Translational Research, 2010
Search committee, AuD Director, 2010
Learning module committee 2010
Hugh Knowles Center Committee to Review the Strategic Plan, 2010
Undergraduate honors committee 2009
AuD program committee member 2009-2011

At University of Washington

NIDCD P30 Computer Core (Co-director), 2006-2009
Peer teaching review committee (chair), 2008-2009
Hearing Aid Dispensing Committee, 1998-2009
Associate Chair and Graduate Program Coordinator, 2005-2006
Speech and Hearing Clinic Advisory Committee, 2004-2006
Tenure committee for Tanya Eadie, 2004-2008 and Julie Bierer, 2005-2009
Audiology Interest Group Head, Sept-Dec. 2000, 2002-2005
Student computer lab committee, 2001-2003
Search committees for: Psychology dept. chair, 2008; Faculty position in normal processes, 2004-2005;
Faculty position in voice, 2000-2002; Audiology clinical supervisor, 1998, 2001.
Bloedel Affiliate Committee 1999-2002
Undergraduate Assessment Committee, 1998-2001

Professional Affiliations

Hugh Knowles Foundation Fellow 2009-present
Virginia Merrill Bloedel Hearing Research Center Affiliate 1996-2009
American Speech-Language-Hearing Association 1992-present
American Auditory Society
Acoustical Society of America. (Elected as full member in 2013)
American Academy of Audiology
Gerontological Society of America 2013-present

Errata: Recent Professional Development and Community Involvement

Foundations of Online Teaching, Northwestern University (online), July 6-24, 2020

Northwestern University Faculty Leadership Program, 2019-2020
Department Executive Officers seminar, 2019
Can you benefit from over-the-counter hearing aids? North Shore Senior Center, Jan. 12, 2020, & Admiral at the Lake, Feb. 27, 2020.
Searle Center for Advancing Learning and Teaching, Developing Effective Learning Objectives (online), Oct. 24, 2017.
Searle Fellows Program 2-day Retreat, Dec. 1-2, 2016.
Understanding the hearing aid marketplace. North Shore Senior Center, Sept. 14, 2015 & Evanston Public Library, Dec. 7, 2015.
Osher Lifelong Learning Institute classroom communication project, 2015 (including talks on communication strategies in classroom to OLLI Board, and to both Chicago and Evanston OLLI members)
Teaching Amplification conference, University of Pittsburgh, June 2015
Signal processing in Matlab. Mathworks. Oct. 2013.
FFT analysis basics. Bruel & Kjaer. July 2012.
Advising audiologist, Northshore Senior Center Hearing Loss Association of America (HLAA) group, 2012-present
Building Graphical User Interfaces in Matlab. Mathworks. November, 2011.
Programming for correctness. Mathworks. November, 2011
Statistical analysis in Matlab. Mathworks. Feb. 2011.
Mentoring graduate students. Searle Center for Teaching Excellence, Northwestern University. Feb. 2011.
Mentor, Lessons for Success. ASHA, 2008-2012
Coordinator, Lions' Hearing Aid Bank, Washington, 2004-2007