Curriculum Vitae

Elizabeth A. Strickland **May 2022**

Research Interests

Psychoacoustic and physiological measures of peripheral auditory processes in listeners with normal hearing and cochlear hearing impairment, particularly dynamic adjustments in response to sound; models of auditory signal processing and perception

Education

Ph.D.	1994	University of Minnesota	Psychology
M.S.	1984	Purdue University	Hearing Science and Clinical Audiology
B.A.	1980	Brown University	Psychology

Professional Experience

Visiting Fellow	Faculty of Medicine, KU Leuven, Belgium	2014, 2015, 2016
Professor	Dept. of Speech, Language, and Hearing Sciences Purdue University	2012-present
Visiting Professor	Dept. of Otology and Laryngology Harvard Medical School	2012
Associate Professor	Dept. of Speech, Language, and Hearing Sciences Purdue University	2001-present
Assistant Professor	Dept. of Speech, Language, and Hearing Sciences Purdue University	1995-2000
NIH Postdoctoral Fellow	Psychology Department, University of Florida Supervisor: David M. Green, Ph.D.	1994-1995
Scientist	Psychology Department, University of Minnesota	1994
Research Assistant	Psychology Department, University of Minnesota	1990-1993
NIH Predoctoral Fellow	Psychology Department, University of Minnesota T32 training grant	1987-1990
Research Audiologist	House Ear Institute	1985-1986
Clinical Fellowship	Otologic Medical Group, Los Angeles, CA	1985-1986
Research Assistant	Dept. of Speech, Language, and Hearing Sciences Purdue University	1982-1984

Certification

Certificate of Clinical Competence in Audiology, ASHA, 1986-present

RESEARCH ACTIVITIES

Extramural sponsorship

Temporal effects in simultaneous masking, forward masking and suppression, NIH (NIDCD, R01-DC008327), 3/1/08-3/31/23. $1,250,000 TDC. Principal Investigator (Co-Investigators: M. Heinz, H. Bharadwaj)

Communicative Disorders, NIH (NIDCD, T32-DC000030), 7/1/17-6/30/27, $1,984,454, Principal Investigator

Previous extramural sponsorship

Dynamic processes in the auditory system, NIH (NIDCD, R03-DC03510), 8/1/97-7/13/99,

$70,000 TDC. Principal Investigator.

Temporal resolution and auditory filtering, Individual National Research Service Award for Postdoctoral Fellowship from NIH (NIDCD, F32-DC00163), 8/01/94-7/31/95, $22,608 TDC. Principal Investigator.

Previous intramural sponsorship

Investigating the mechanisms underlying intensity discrimination, Purdue Research Foundation, 8/12/13-8/11/14, $17,608 TDC, Graduate Student Research Grant (**Elin Roverud**).

The effects of cochlear hearing impairment on dynamic changes in frequency selectivity, Kinley Trust, 2002-2003. $20,000 TDC, Principal Investigator

Consultation on grants

Aging effects on suppression and correlations with speech understanding in noise, Principal Investigator: **Erica Hegland**, Purdue University, NIH (NIDCD, F31 DC014395), 7/1/15 - 6/30/17

Peer-reviewed scientific articles

(**Bold** = student or post doc)

1. **Salloom, W. B.**, and Strickland, E. A. (2021). "The effect of broadband elicitor laterality on psychoacoustic gain reduction across signal frequency," *Journal of the Acoustical Society of America, 150*, 2817-2835.
2. **DeRoy Milvae, K.**, and Strickland, E. A. (2021). "Behavioral measures of cochlear gain reduction depend on precursor frequency, bandwidth, and level," *Frontiers in Neuroscience*, October 4, https://doi.org/10.3389/fnins.2021.716689
3. **DeRoy Milvae, K.**, Alexander, J. M., and Strickland, E. A. (2021). "The relationship between ipsilateral cochlear gain reduction and speech-in-noise recognition at positive and negative signal-to-noise ratios," *Journal of the Acoustical Society of America 149*, 3449-3461.
4. **Hegland, E.L.**, and Strickland, E.A. (2018). "The effects of preceding sound and stimulus duration on measures of suppression in younger and older adults," *Journal of the Acoustical Society of America 144*: 3548-3562. https://doi.org/10.1121/1.5083824 PMID: 30599663
5. Strickland, E. A., **Salloom, W. B.**, and **Hegland, E. L.** (2018). "Evidence for gain reduction by a precursor in an on-frequency forward masking paradigm," *Acta Acustica united with Acustica, Vol. 104*, 809-812, doi: 10.3813/AAA.919229.
6. **DeRoy Milvae, K.**, and Strickland, E. A. (2018). "Psychoacoustic measurements of ipsilateral cochlear gain reduction as a function of signal frequency," *Journal of the Acoustical Society of America, 143(5)*, 3114-3125, doi: 10.1121/1.5038254.
7. Verschooten, E., Strickland, E. A., Verhaert, N., and Joris, P. X. (2017). "Assessment of ipsilateral efferent effects in human via ECochG," *Frontiers in Neuroscience, Vol. 11, Art. 331*, doi: 10.3389/fnins.2017.00331.
8. **Bidelman, G. M**., **Jennings, S. G.**, and Strickland, E. A. (2015). "PsyAcoustX: A flexible MATLAB® package for psychoacoustics research," *Frontiers in Psychology, 6(1498)*, 1-11.
9. **Roverud, E.**, and Strickland, E. A. (2015). "The effects of ipsilateral, contralateral, and bilateral broadband noise on the mid-level hump in intensity discrimination," *Journal of the Acoustical Society of America, 138(5)*, 3245-3262.

10. **Roverud, E.**, and Strickland, E. A. (2015). "Exploring the source of the mid-level hump for intensity discrimination in quiet and the effects of noise," *Journal of the Acoustical Society of America, 137(3)*, 1318-1335.
11. **Roverud, E.**, and Strickland, E. A. (2014). "Accounting for nonmonotonic precursor duration effects with gain reduction in the temporal window model," *Journal of the Acoustical Society of America, 135(3)*, 1321-1334.
12. **Smalt, C. J.**, Heinz, M. G., and Strickland, E. A. (2014). "Modeling the time-varying and level-dependent effects of the medial olivocochlear reflex in auditory-nerve responses," *Journal of the Association for Research in Otolaryngology, 15*, 159-173.
13. **Jennings, S. G.**, and Strickland, E. A. (2012). "Evaluating the effects of olivocochlear feedback on psychophysical measures of frequency selectivity," *Journal of the Acoustical Society of America, 132(4)*, 2483-2496.
14. **Jennings, S. G.**, and Strickland, E. A. (2012). Auditory filter tuning inferred with short sinusoidal and notched-noise maskers," *Journal of the Acoustical Society of America, 132(4)*, 2497-2513.
15. **Chintanpalli, A.**, **Jennings, S. G.**, Heinz, M. G., and Strickland, E. A. (2012). "Modeling the anti-masking effects of the olivocochlear reflex in auditory-nerve responses to tones in noise," *Journal of the Association for Research in Otolaryngology, 13*, 219-235.
16. **Jennings, S. G.**, Heinz, M. G, and Strickland, E. A. (2011). "Evaluating adaptation and olivocochlear efferent feedback as potential explanations of psychophysical overshoot," *Journal of the Association for Research in Otolaryngology, 12*, 345-350.
17. **Roverud, E.**, and Strickland, E. A. (2010). "The time course of cochlear gain reduction measured using a more efficient psychophysical technique," *Journal of the Acoustical Society of America, 128*, 1203-1214.
18. **Jennings, S. G.**, Strickland, E. A**.**, and Heinz, M. G. (2009). "Precursor effects on behavioral estimates of frequency selectivity and gain in forward masking," *Journal of the Acoustical Society of America, 125*, 2172-2181.
19. **Krull, V.**, and Strickland, E. A**.** (2008). "The effect of a precursor on growth of forward masking," *Journal of the Acoustical Society of America, 123*, 4352-4357.
20. Strickland, E. A. (2008). "The relationship between precursor level and the temporal effect," *Journal of the Acoustical Society of America, 123*, 946-954.
21. **Wagoner, L.**, McGlothlin, J., Chung, K., Strickland, E**.**, Zimmerman, N., and Carlson, G. (2007). "Evaluation of noise attenuation and verbal communication capabilities using three insert hearing protection systems among airport maintenance personnel." *Journal of Occupational and Environmental Hygiene, 4*, 114-122.
22. Strickland, E. A., and **Krishnan, L. A.** (2005). "The temporal effect in listeners with mild to moderate cochlear hearing impairment," *Journal of the Acoustical Society of America, 118*, 3211-3217.
23. Strickland, E. A. (2004). "The temporal effect with notched-noise maskers: Analysis in terms of input-output functions," *Journal of the Acoustical Society of America, 115*, 2234-2245.
24. Strickland, E. A., Viemeister, N. F., Van Tasell, D. J., and Preminger, J. E. (2004) (L). "The role of high-CF fibers in speech perception: Comments on Horwitz et al., (2002)," *Journal of the Acoustical Society of America, 116*, 49-50.
25. Strickland, E. A. (2001). "The relationship between frequency selectivity and overshoot," *Journal of the Acoustical Society of America, 109*, 2062-2073.
26. Strickland, E. A., and **Dhar, S.** (2000). "An analysis of quasi-frequency-modulated noise and random-sideband noise as comparisons for amplitude-modulated noise," *Journal of the Acoustical Society of America, 108*, 735-742.

27. Strickland, E. A. (2000). "The effects of frequency region and level on the temporal modulation transfer function," *Journal of the Acoustical Society of America, 107*, 942-952.
28. Strickland, E. A., and Viemeister, N. F. (1997). "The effects of frequency region and bandwidth on the temporal modulation transfer function," *Journal of the Acoustical Society of America, 102*, 1799-1810.
29. Strickland, E. A., and Viemeister, N. F. (1996). "Cues for discrimination of envelopes," *Journal of the Acoustical Society of America, 99*, 3638-3646.
30. Strickland, E. A., Viemeister, N. F., Van Tasell, D. J., and Preminger, J. E. (1994). "Is useful speech information carried by fibers with high characteristic frequencies?" *Journal of the Acoustical Society of America, 95*, 497-501.
31. Strickland, E. A., Viemeister, N. F., Fantini, D. A., and Garrison, M. A. (1989). "Within- versus cross-channel mechanisms in detection of envelope phase disparity," *Journal of the Acoustical Society of America, 86*, 2160-2166.
32. Strickland, E. A., Burns, E. M., and Tubis, A. (1985). "Incidence of spontaneous otoacoustic emissions in children and infants," *Journal of the Acoustical Society of America, 78*, 931-935.
33. Burns, E. M., Strickland, E. A., Tubis, A., and Jones, K. (1984). "Interactions among spontaneous otoacoustic emissions. I. Distortion products and linked emissions," *Hearing Research, 16*, 271-278.

Book chapters and conference proceedings

1. **DeRoy Milvae, K.**, Alexander, J. M., and Strickland, E. A. (2016). Is cochlear gain reduction related to speech-in-babble performance? S. Santurette, T. Dau, J. C. Dalsgaard, L. Tranebjaerg and T. Andersen (Eds.), Proceedings of ISAAR 2015: Characterization, Modelling, Compensation Strategies.
2. **Hegland, E. L**, and Strickland, E. A. (2016). Aging effects on behavioural estimates of suppression with short suppressors. In: P. van Dijk, D. Başkent, E. Gaudrain, E. de Kleine, A. Wagner, C. Lanting (Eds.) *Physiology, Psychoacoustics and Cognition in Normal and Impaired Hearing* (pp 9-17), Springer.
3. **Roverud, E. M.**, and Strickland, E. A. (2013). Modeling psychophysical gain reduction effects as a function of precursor duration. Proceedings of Meetings on Acoustics Vol. 19, 050093.
4. **Roverud, E. M.**, and Strickland, E. A. (2013). Modeling effects of precursor duration on behavioral estimates of cochlear gain. In B. C .J. Moore, R. D. Patterson, I. M. Winter, R. P. Carlyon, H. E. Gockel (Eds.), *Basic Aspects of Hearing: Physiology and Perception* (pp 55-63) Springer, New York.
5. **Jennings, S. G.**, and Strickland, E. A. (2010). The frequency selectivity of gain reduction masking: Analysis using two equally effective maskers. In E. A. Lopez-Poveda, A. R. Palmer, and R. Meddis (Eds.), *The Neurophysiological Bases of Auditory Perception* (pp 47-58), Springer, New York.
6. Strickland, E. A. (1998). Filter shapes for brief signals as a function of preceding stimulation. Proceedings, 16th International Congress on Acoustics and the 135th Meeting of the Acoustical Society of America, pp. 867-868.
7. Jones, K., Tubis, A., Long, G. R., Burns, E. M., and Strickland, E. A. (1986). Interactions among multiple spontaneous otoacoustic emissions. In: J. B. Allen, J. L. Hall, A. Hubbard, S. T. Neely & A. Tubis, (Eds.), *Peripheral Auditory Mechanisms* (pp 266-273). Springer Verlag, New York.

Invited articles

1. Strickland, E. A., and **Jennings, S. G.** (2007). "Technical Committee on Psychological and Physiological Acoustics: An adjustable auditory system," *Acoustics Today 3*, p. 27-28.

Invited Talks

1. Strickland, E. A. (July, 2019). Changing the channel. Knowles Symposium on Contemporary Hearing Science inspired by David M. Green, Northwestern University, Evanston, Illinois.
2. Strickland, E. A. "Using psychoacoustics to examine a changing auditory system," Journal of the Acoustical Society of America, 143, 1914, Minneapolis, MN, May 2018.
3. Strickland, E. A. "Behavioral measurements of gain reduction and temporal envelope perception," Workshop on "The role of temporally patterned neural responses in auditory perception," Hanse-Wissenschaftskolleg Institute for Advanced Study, Delmenhorst, Germany, June 2017.
4. Strickland, E. A., **Roverud, E.**, and **DeRoy Milvae**, Kristina. "Behavioral and modeling explorations of cochlear gain reduction," 167th Meeting of the Acoustical Society of America, Providence, RI, May 2014.
5. Strickland, E. A. "Behavioral and modeling explorations of cochlear gain reduction," Ear Club, University of California, Berkeley, California, March 2014.
6. Strickland, E. A. "Behavioral and modeling explorations of cochlear gain reduction," Boston University Hearing Research Center Seminar, Boston, Massachusetts, November 2012.
7. Strickland, E. A. "Psychoacoustic measures of gain reduction: Does suppression play a role?" Eaton-Peabody Laboratories Seminar, Massachusetts Eye and Ear Institute, Boston, Massachusetts, October 2012.
8. Strickland, E. A. "The potential role of ipsilateral efferent activation on auditory perception," 6th International Workshop on Advances in Audiology of the University of Salamanca, Salamanca, Spain, June 2012.
9. Strickland, E. A. "It's about time: Psychoacoustic evidence for the timecourse of the MOCR," Northwestern University, Evanston, Illinois, June 2010.
10. Strickland, E. A. "What psychoacoustics may tell us about auditory efferent feedback," City University of New York, New York, NY, March 2009.
11. Strickland, E. A. "Psychoacoustic evidence for changes in nonlinearity with sound stimulation," The Perceptual Consequences of Cochlear Nonlinearity, Delmenhorst, Germany, August 2001.
12. Strickland, E. A. "Dynamic changes in auditory filtering," Northwestern University Seminar on Hearing, February 2001.

Conference talks

1. Strickland, E. A., **Skaggs, M.**, **Hopkins, A.**, **Mielnicki, N.**, **Salloom, W. B.**, **Morris, H.**, and **Holt, A.** (May, 2021). A summary of behavioral measures of cochlear gain reduction in listeners with normal hearing or minimal cochlear hearing loss. Acoustics in Focus (virtual ASA meeting).
2. **Farhadi, A.**, Jennings, S. G., Strickland, E. A., and Carney, L. H. (June, 2021). A closed-loop gain-control feedback model for the medial efferent system of the descending auditory pathway. IEEE International Conference on Acoustics, Speech and Signal Processing, Toronto, ON, Canada.
3. Strickland, E. A., **Salloom, W. B.**, and **Hegland, E. L.** "Evidence for gain reduction by a precursor in an on-frequency forward masking paradigm, 18th International Symposium on Hearing, Snekkersten, Denmark, June 2018.

4. Strickland, E. A., **Morris, H.**, **Skaggs, M.**, **Salloom, W. B.**, and **Holt, A.** "Behavioral measures of cochlear gain reduction in listeners with normal hearing or minimal cochlear hearing loss," Journal of the Acoustical Society of America, 143(A), 1964, Minneapolis, MN, May 2018.
5. **Hegland, E. L.**, and Strickland, E. A. "Aging effects on behavioural estimates of suppression with short suppressors," 17th International Symposium on Hearing, Groningen, Netherlands, June 2015.
6. **Smalt, C. J.**, Heinz, M. G., and Strickland, E. A. "Modeling the time-varying level dependent effects of the olivocochlear reflex in auditory nerve responses." Association for Research in Otolaryngology Abstracts, 36, 536-537, Baltimore, MD, February 2013.
7. **Roverud, E.**, and Strickland, E. A. "Modeling effects of precursor duration on behavioral estimates of cochlear gain," 16th International Symposium on Hearing, Cambridge, England, July 2012.
8. Davies, P., Bolton, J. S., Kai, M. L., Strickland, E. A., and Wodicka, G. "Graduate studies in acoustics at Purdue University," Journal of the Acoustical Society of America, 126(A), 2228, San Antonio, TX, October 2009.
9. **Jennings, S. G.**, and Strickland, E. A. "The effects of precursor frequency on behavioral estimates of cochlear gain in forward masking," 15th International Symposium on Hearing, Salamanca, Spain, June 2009.
10. Strickland, E. A. "The temporal effect in a notched-noise masker for normal-hearing and hearing-impaired listeners," Journal of the Acoustical Society of America, 115(A), 2422, New York, NY, May 2004.
11. Strickland, E. A. "The relationship between auditory filter bandwidth and temporal resolution," Journal of the Acoustical Society of America, 97(A), 3330, Washington, DC, June 1995.
12. Strickland, E. A. and Viemeister, N. F. "The effects of notched noise on detection of amplitude modulation of narrow-band noise," Journal of the Acoustical Society of America, 93(A), 2411, Ottawa, Canada, May 1993.
13. Strickland, E. A., Viemeister, N. F . and Van Tasell, D. J. "Are high-frequency fibers necessary for speech perception in noise?" Journal of the Acoustical Society of America, 89(A), 1866, Baltimore, MD, May 1991.
14. Strickland, E. A. and Viemeister, N. F. "Phase effects in masking of one modulation frequency by another," Journal of the Acoustical Society of America, 86(A), S10, St. Louis, MO, November 1989.
15. Strickland, E. A., Viemeister, N. F., Fantini, D. A., and Garrison, M. A. "Evidence for cross-channel processing in detection of envelope phase disparity," Journal of the Acoustical Society of America, 82(A), S41, Miami, FL, November 1987.
16. Strickland, E. A., and Burns, E. M. (1984). "Spontaneous otoacoustic emissions in children and noise-exposed adults," National Convention of the American Speech-Language-Hearing Association, San Francisco, CA.
17. Burns, E. M., Tubis, A., Jones, K., and Strickland, E. A. (1984). "Further measurements, and modeling, of interactions among spontaneous otoacoustic emissions," Journal of the Acoustical Society of America, 76, S37.
18. Strickland, E. A., Burns, E. M., Tubis, A., and Jones, K. (1984). "Long-term stability and familial aspects of spontaneous otoacoustic emissions (SOAEs)," Journal of the Acoustical Society of America, 75, S82.
19. Burns, E. M., Strickland, E. A., Jones, K., and Tubis, A. (1984). "The relationship of threshold fine structure to spontaneous and evoked otoacoustic emissions," Journal of the Acoustical Society of America, 75, S82.
20. Tubis, A., Jones, K., Burns, E. M., and Strickland, E. A. (1984). "Spontaneous otoacoustic emissions from human ears: Experimental studies and interpretive model,"

Paper presented at the Symposium on Current Topics in Audiology, University of California at Irvine, CA.

Conference abstracts

1. **Salloom, W. B.**, **Wade, K.**, Bharadwaj, H. M., and Strickland, E. A. (January, 2020). The effect of broadband elicitor duration on transient-evoked otoacoustic emissions and a behavioral measure of gain reduction. Association for Research in Otolaryngology Abstracts, PS-515.
2. **Farhadi, A.**, Jennings, S. G., Strickland, E. A., Carney, L. H. (January, 2020). A model with efferent gain control explains the time-varying responses of inferior colliculus neurons to amplitude-modulated stimuli. Association for Research in Otolaryngology Abstracts, PS-821.
3. **Salloom, W. B.**, Bharadwaj, H., and Strickland, E. A. "Physiological and psychoacoustical measurements of two different auditory efferent systems," Association for Research in Otolaryngology Abstracts, PS-223, Baltimore, MD, Feb. 2019
4. Strickland, E. A., **Morris, H.**, **Skaggs, M.**, **Salloom, W. B.**, and **Holt, A.** "Behavioral measures of cochlear gain reduction in listeners with normal hearing or minimal cochlear hearing loss," Journal of the Acoustical Society of America, 143(A), 1964, Minneapolis, MN, May 2018.
5. **Salloom, W. B.**, and Strickland, E. A. (Feb, 2018). The effects of ipsilateral, contralateral, and bilateral precursors on gain reduction across the frequency range. Association for Research in Otolaryngology Abstracts, PS-373.
6. Strickland, E. A., **Holt, A.**, and **Morris, H.** (May, 2017). Cochlear gain reduction in listeners with borderline normal quiet thresholds. Poster presented at Acoustics '17 (Boston, MA).
7. Verschooten, E., Strickland, E. A., and Joris, P. X. (Feb., 2017). The effect of contralateral noise on behavioral thresholds in human is low-frequency biased. Association for Research in Otolaryngology Abstracts, PS-643.
8. **Hegland, E. L.**, Strickland, E. A., and Heinz, M. H. (Feb., 2017). Modeling suppression, gain, and age-related effects using an auditory-nerve model. Association for Research in Otolaryngology Abstracts, PS-170.
9. **Hegland, E. L.**, Strickland, E. A., and Francis, A. L. (May, 2016). Age-related effects on two-tone suppression and consonant perception in noise. Poster presented at the 171st Meeting of the Acoustical Society of America (Salt Lake City, UT).
10. **DeRoy Milvae, K.**, Alexander, J. M., and Strickland, E. A. (May 2016). Investigation of the relationship between cochlear gain reduction and speech-in-noise performance at positive and negative signal-to-noise ratios. Poster presented at the 171st Meeting of the Acoustical Society of America (Salt Lake City, UT).
11. Verschooten, E., Strickland, E. A., Verhaert, N., and Joris, P. (2016). "Effect of contralateral stimulation on low frequency hearing in human," Association for Research in Otolaryngology Abstracts, PS-307.
12. **DeRoy Milvae, K.**, and Strickland, E. A. (2016). "Psychoacoustic estimates of cochlear gain reduction at 2 and 4 kHz," Association for Research in Otolaryngology Abstracts, PS-885.
13. **Hegland, E.**, and Strickland, E. A. (2016). "The effects of gain reduction on suppression measured as a function of age," Association for Research in Otolaryngology Abstracts, PS-887.
14. **Lawler, B.**, Krishnan, L., Van Hyfte, S., and Strickland, E. A. (2015). "The newborn hearing screening process: Parental anxiety and reactions," National Convention of the America Speech-Language-Hearing Association, Denver, CO.

15. Verschooten, E., Strickland, E. A., Verhaert, N., and Joris, P. (2015). “Effect of contralateral stimulation on cochlear mass potentials in humans,” Association for Research in Otolaryngology Abstracts, PS-494.
16. **Roverud, E.**, and Strickland, E.A. (2014). “The effects of ipsilateral and contralateral noise on the ‘mid-level hump’ in intensity discrimination,” Association for Research in Otolaryngology Abstracts, 37, 62.
17. Zhao, W., Strickland, E. A., and Guinan, Jr., J. J. (2014). “Measurement of medial olivocochlear efferent activity during psychophysical overshoot,” Association for Research in Otolaryngology Abstracts, 37, 78.
18. **Davies-Venn, E.**, and Strickland, E. A. (2014). “The effect of preceding stimulation on a broadband measure of frequency resolution,” Association for Research in Otolaryngology Abstracts, 37, 511.
19. **Hegland, E.**, and Strickland, E. A. (2013). “Enhancement and suppression estimated from growth of masking functions,” Association for Research in Otolaryngology Abstracts, 36, 88.
20. **Hegland, E.**, and Strickland, E. A. (2012). “Examining enhancement conditions with an auditory nerve model,” Journal of the Acoustical Society of America, 131(A), 3517, Hong Kong.
21. **DeRoy, K.**, and Strickland, E. A. (2012). “The effect of masker frequency and level on cochlear gain reduction and related learning effects,” Association for Research in Otolaryngology Abstracts, 35, 92.
22. **Roverud, E.**, and Strickland, E. A. (2011). “Parametric issues in measuring the olivocochlear reflex with a masking technique,” Journal of the Acoustical Society of America, 130(A), 2545, San Diego, CA.
23. **Chintanpalli, A.**, **Jennings, S.G.**, Heinz, M.G., and Strickland, E.A. (2011). “Modeling the anti-masking effects of the olivocochlear reflex in auditory-nerve responses to tones in noise,” Journal of the Acoustical Society of America, 129(A), 2592, Seattle, WA.
24. **Jennings, S. G.**, and Strickland, E.A. (2011). “Evaluating the effects of efferent feedback, temporal integration, and off-frequency listening on perceptual estimates of frequency selectivity,” Journal of the Acoustical Society of America, 129(A), 2593, Seattle, WA.
25. **Schumann, M. K.**, and Strickland, E. A. (2011). “The potential role of the medial olivocochlear reflex in the estimation of cochlear input-output functions,” Journal of the Acoustical Society of America, 129(A), 2593, Seattle, WA.
26. **DeRoy, K.**, and Strickland, E. A. (2011). “The effect of a precursor on growth of masking functions and recovery from forward masking,” Association for Research in Otolaryngology Abstracts, 34, 184.
27. **Jennings, S. G.**, and Strickland, E. A. (2011). “Perceptual and modeling estimates of frequency selectivity suggest that acoustic stimulation reduces cochlear gain,” Association for Research in Otolaryngology Abstracts, 34, 179.
28. **Jennings, S. G.**, Strickland, E. A., and Francis, A. (2010). “An efferent hypothesis may explain why long duration vowels enhance spectral contrast in vowel masking patterns,” Association for Research in Otolaryngology Abstracts, 33, 339.
29. **Roverud, E.**, and Strickland, E. A. (2010). “The time course of the temporal effect and its relationship to an efferent mechanism,” Association for Research in Otolaryngology Abstracts, 33, 327.
30. Strickland, E. A. (2010). “The role of the temporal effect in the measurement of temporal masking curves,” Association for Research in Otolaryngology Abstracts, 33, 328.
31. Strickland, E. A., and **Shames, Y. A.** (2010). “The relationship between quiet threshold and the forward-masking temporal effect,” Journal of the Acoustical Society of America, 127(A), 1810, Baltimore, MD.

32. **Roverud, E.**, and Strickland, E. A. (2009). “The effect of precursor duration and delay on behavioral estimates of cochlear gain,” Association for Research in Otolaryngology Abstracts, 32, 888.
33. **Jennings, S. G.**, Heinz, M. G., and Strickland, E. A. (2008). “Exploring the psychophysical temporal effect in masking using a model of the auditory periphery,” Journal of the Acoustical Society of America, 123(A), 3860, Paris, France.
34. **Jennings, S. G.**, and Strickland, E. A. (2007). “Reductions in gain from pre-masker stimulation at the signal frequency,” Journal of the Acoustical Society of America, 121, 3197.
35. **Krishnan, L. A.**, and Strickland, E. A. (2007). “The role of suppression in temporal masking effects,” Journal of the Acoustical Society of America, 121, 3095.
36. **Ganesh, V.**, and Strickland, E. A. (2007). “The effect of a precursor on growth-of-masking functions,” Association for Research in Otolaryngology Abstracts, 30, 317.
37. Strickland, E. A., and **Krishnan, L. A.** (2005). “The temporal effect for signal frequencies around a notched cochlear hearing loss,” Journal of the Acoustical Society of America, 117, 2534.
38. **Krishnan, L. A.**, Strickland, E. A., and Durrant, J. (2005). “Auditory brainstem response correlate of the psychophysical temporal effect of masking,” Association for Research in Otolaryngology Abstracts, 28, 360.
39. **Wagoner, L. L.**, McGlothlin, J. D., Chung, K., Strickland, E. A., Zimmerman, N., and Carlson, G. (2004). “Evaluation of noise attenuation and verbal communication capabilities using three ear insert hearing protection systems among airport maintenance personnel,” American Industrial Hygiene Conference and Exposition, Atlanta, GA.
40. Strickland, E. A. (2004). “The temporal effect in a notched-noise masker for normal-hearing and hearing-impaired listeners,” Journal of the Acoustical Society of America, 115, 2422.
41. Strickland, E. A, and **Krishnan, L. A.** (2003). “The temporal effect in listeners with cochlear hearing impairment,” Association for Research in Otolaryngology Abstracts, 26, 220.
42. **Pimentel, V.**, and Strickland, E. A. (2002). “Filter asymmetry for short-duration signals as a function of signal delay from masker onset,” Journal of the Acoustical Society of America, 111, 2358.
43. Strickland, E. A. (2001). “Growth of masker level with signal level as a function of preceding stimulation,” Journal of the Acoustical Society of America, 109, 2464.
44. Strickland, E. A. (2000). “Filter shapes for long-duration signals and for short-duration signals as a function of signal delay from masker onset,” Journal of the Acoustical Society of America, 107, 2915.
45. Strickland, E. A. (1997). “Further examination of the relationship between auditory filter bandwidth and temporal resolution,” Journal of the Acoustical Society of America, 101, 3150.
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47. Strickland, E. A., and Viemeister, N. F. (1995). “An attempt to find psychophysical evidence for efferent action in humans,” Association for Research in Otolaryngology Abstracts,
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50. Strickland, E. A., and Viemeister, N. F. (1989). “Phase effects in masking of one modulation frequency by another,” Journal of the Acoustical Society of America, 86, S11.
51. Strickland, E. A., Viemeister, N. F., Fantini, D. A., and Garrison, M. A. (1987). “Evidence for cross-channel processing in detection of envelope phase disparity,” Journal of the Acoustical Society of America, 82, S41.
52. Cudahy, E. A., Mikami, K. A., and Strickland, E. A. (1985). “Hearing impaired listeners’ performance on selected psychophysical tasks,” National Convention of the America Speech-Language-Hearing Association, Washington, DC.

TEACHING

Auditory Perception (SLHS 503) [core course in AuD program, also taken by some PhD students]
Hearing Conservation (SLHS 570) [core course in AuD program, also occasionally taken by undergraduates]

RECOGNITION AND PROFESSIONAL ACTIVITIES

Awards, Honors

Faculty Leadership Academy for Interdisciplinary Research (FLAIR) Fellow, 2019
Fellow of the Acoustical Society of America, 2011, “For contributions to dynamic processes in hearing”
Bronze Acorn Seed for Success Award for Excellence in Research, Purdue University, 2008
International Travel Grant, College of Liberal Arts, 2008
International Travel Grant, Purdue Research Foundation, 1999
Graduate School Fellowship, University of Minnesota, 1986

Professional Societies

The Acoustical Society of America (1984 – present)
- Chair, Membership Committee, 2019-present
- Psychological and Physiological Acoustics Representative, Membership Committee, 2017-2019
- Member, Selection Committee, William and Christine Hartmann Prize in Auditory Neuroscience, 2015-2017
- Member, Technical Committee on Psychological and Physiological Acoustics,1997-2000, 2004-5, 2016-2019
- Chair, Technical Committee on Psychological and Physiological Acoustics, 2006-2008
- Member, Organizing Committee, Acoustics 08 Paris 2008, 155th Meeting of the Acoustical Society of America, 5th Forum Acusticum of the European Acoustics Association, 9th Congrès Français d’Acoustique of the French Acoustical Society

American Speech-Language-Hearing Association (1986 - present)
- Reviewer, American Speech-Language-Hearing Foundation travel awards, 2015
- Grant Review and Reviewer Training
- Pathways reviewer and mentor, 2021-2022

Association for Research in Otolaryngology (1996 - present)
American Auditory Society (2003 - present)

Mentoring Activities for Professional Societies

American Speech-Language-Hearing Association, Mentor for Pathways Program, 2021-present (Includes rating applications, mentoring one PhD student and one post doctoral fellow, participating in three-day mentoring workshop)
Association for Research in Otolaryngology, Mentor for spARO (student, post doc, resident, and fellow chapter of ARO), 2019-present. (Includes mentoring one PhD student and one post doctoral fellow, participation in Women in Science Roundtable workshops at ARO meetings.)

Review of grants

Ad Hoc Member, AUD, CDRC, Training Grant, and Special Panel Study Sections, NIH(NIDCD)
American Speech-Language-Hearing Foundation
National Science Foundation

Review of manuscripts

Ear and Hearing – Guest Associate Editor, 2017
Hearing Research
Journal of Speech, Language, and Hearing Research - Guest Associate Editor, 2010
Journal of the Acoustical Society of America - Associate Editor, 2013-2017
Journal of the Association for Research in Otolaryngology

Purdue University

University Faculty Awards and Recognition Committee, 2018-2020
Dean of Libraries Search Committee
Trailblazer Award Selection Committee
PULSe Award Committee

Department of SLHS

2018-present Organizer of Professional Development Seminar for Doctoral Students and Post Docs
2017-present Director of the SLHS T32 Training Grant
2019-present Graduate Chair (includes chairing Graduate Committee, MS SLP Admissions Committee, AuD Admissions Committee, as well as ex officio on MS SLP Curriculum Committee and AuD Curriculum Committee)
2021-2022 PhD Review Committee
2020-2021 Chair, Hearing Faculty Search Committee
2019-2020 Chair, Hearing Faculty Search Committee
2018-2019 Chair, Speech Physiology Faculty Search Committee
2018 Audiology Clinical Faculty Search Committee
2016-2019 AuD Admissions Committee
2016-2018 Co-organizer (with Jessica Huber) of Professional Development Seminar for Doctoral Students and Post Docs
2016-2018 Steer Award Committee

Non-SLHS Departments

2017-2019 Primary Committee, Nursing

Interdisciplinary activity

Faculty Associate, Center on Aging and the Life Course, Purdue, 2014-present
Faculty, Purdue Institute for Integrative Neuroscience, Purdue, 2015-present