

Curriculum Vitae

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature Matthew Goupell

Date September 18, 2023

I. Personal Information

I.A. UID, Last Name, First Name, Middle Name, Contact Information

UID: 106322358

Goupell, Matthew Joseph

Lefrak Hall 0241
(301) 405-8552
goupell@umd.edu

I.B. Academic Appointments at UMD

Hearing and Speech Sciences

Professor (2021)

Associate Professor (2016 – 2021)

Assistant Professor (2011 – 2016)

Physics

Affiliate Associate Professor (2016 – present)

Comparative and Evolutionary Biology of Hearing (CEBH) Training Program

Core Faculty Member (2011 – present)

Neuroscience and Cognitive Science (NACS) Program

Faculty Member (2011 – present)

Language Science Center (LSC)

Faculty Member (2011 – present)

University of Maryland Cochlear Implant Center of Excellence

Co-Director (2017 – present)

I.D. Other Employment

2018–2019 Visiting Associate Professor, Boston University, Biomedical Engineering

2010 Assistant Lecturer, University of Wisconsin–Madison, Communicative Disorders

2009–2011 Assistant Scientist, University of Wisconsin–Madison, Waisman Center (Lab of R. Litovsky)

2009 Postdoctoral Fellow, University of Wisconsin–Madison, Waisman Center (Lab of R. Litovsky)

2006–2009 Postdoctoral Fellow, Austrian Academy of Sciences, Vienna, Austria (Lab of B. Laback)

2003–2005 Research Assistantship, Physics Program, Michigan State University (Lab of W. Hartmann)

2001–2003 Teaching Assistantship, Physics Program, Michigan State University

2000 Department of Energy ERULF Appointment, Lawrence Berkeley National Laboratory

1998–2001 Hope College Nuclear Group, Summer Research Experience for Undergraduates (REU)

I.E. Educational Background

2005	Ph.D.	Physics	Michigan State University, East Lansing, MI
2003	M.S.	Physics	Michigan State University, East Lansing, MI
2001	B.S.	Physics	Hope College, Holland, MI

II. Research, Scholarly, and Creative Activities

Note: Underlined names denote mentoring of student.

II.A. Books

II.A.2. Books Edited

1. Litovsky, R. Y., **Goupell, M. J.**, Popper, A. N., and Fay, R. (2021). *Binaural Hearing*. (Springer International Publishing, Cham Switzerland).

II.B. Chapters

II.B.1. Books

1. **Goupell, M. J.** and Hartmann, W. M. (2007). “Interaural phase and level fluctuations as the basis of interaural incoherence detection,” in *Hearing – From Sensory to Perception* by Kollmeier *et al.* (Springer-Verlag, Berlin Heidelberg).
2. **Goupell, M. J.**, Hancock, K., Majdak, P., Laback, B., and Delgutte, B. (2010). “Binaurally-coherent jitter improves neural and perceptual ITD sensitivity in normal and electric hearing,” in *Advances in Auditory Research: Physiology, Psychophysics and Models* by Lopez-Poveda *et al.* (Springer-Verlag, Berlin Heidelberg).
3. Litovsky, R. Y., **Goupell, M. J.**, Misurelli, S. M., and Kan, A. (2017). “Hearing with Cochlear Implants and Hearing Aids in Complex Auditory Scenes,” in *The Auditory System at the Cocktail Party* by Middlebrooks *et al.* (Springer International Publishing, Cham Switzerland), pp. 261-291.
4. Litovsky, R. Y. and **Goupell, M. J.** (2021). “Binaural Processing of Sounds,” in *Binaural Hearing* by Litovsky *et al.* (Springer International Publishing, Cham Switzerland), pp. 1-8.
5. Best, V., **Goupell, M. J.**, and Colburn, H. S. (2021). “Binaural Hearing and Across-Channel Processing,” in *Binaural Hearing* by Litovsky *et al.* (Springer International Publishing, Cham Switzerland), pp. 181-207.

II.C. Articles in Refereed Journals

1. DeYoung, P. A., **Goupell, M. J.**, Atallah, B. V., Haglund, J. A., Jolivet, P. L., MacDermaid, M. K., Peaslee, G. F., Kolata, J. J., Berners, E. D., Peterson, D., von Schwarzenberg, J., and Hinnefeld, J. D. (2000). “Evidence for nonequilibrium proton emission in a low-energy heavy-ion reaction,” *Phys. Rev. C* 61, 4603/1-4.
2. Aguilera, E. F., Kolata, J. J., Nunes, F. M., Becchetti, F. D., DeYoung, P. A., **Goupell, M. J.**, Guimaraes, V., Hughey, B., Lee, M. Y., Lizcano, D., Martinez-Quiroz, E., Nowlin, A., O'Donnell, T. W., Peaslee, G. F., Peterson, D., Santi, P., and White-Stevens, R. (2000). “Transfer/breakup modes in the ${}^6\text{He} + {}^{209}\text{Bi}$ reaction near and below the coulomb barrier,” *Phys. Rev. Lett.* 84, 5058-5061.
3. **Goupell, M. J.** and Hartmann, W. M. (2006). “Interaural fluctuations and the detection of interaural incoherence: Bandwidth effects,” *J. Acoust. Soc. Am.* 119, 3971-3986.
4. Hartmann, W. M. and **Goupell, M. J.** (2006). “Enhancing and unmasking the harmonics of a complex tone,” *J. Acoust. Soc. Am.* 120, 2142-2157.
5. **Goupell, M. J.** and Hartmann, W. M. (2007). “Interaural fluctuations and the detection of interaural incoherence. II. Brief duration noises,” *J. Acoust. Soc. Am.* 121, 2127-2136.

6. **Goupell, M. J.** and Hartmann, W. M. (2007). "Interaural fluctuations and the detection of interaural incoherence. III. Narrowband experiments and binaural models," *J. Acoust. Soc. Am.* 122, 1029-1045.
7. **Goupell, M. J.**, Laback, B., Majdak, P., and Baumgartner, W.-D. (2008). "Effects of upper-frequency boundary and spectral warping on speech intelligibility in electrical stimulation," *J. Acoust. Soc. Am.* 123, 2295-2309.
8. **Goupell, M. J.**, Laback, B., Majdak, P., and Baumgartner, W.-D. (2008). "Current-level discrimination and spectral profile analysis in multi-channel electrical stimulation," *J. Acoust. Soc. Am.* 124, 3142-3157.
9. **Goupell, M. J.**, Laback, B., and Majdak, P. (2009). "Enhancing sensitivity to interaural time differences at high modulation rates by introducing temporal jitter," *J. Acoust. Soc. Am.* 126, 2511-2521.
10. Majdak, P., **Goupell, M. J.**, and Laback, B. (2010). "3-D localization of virtual sound sources: Effects of visual environment, pointing method, and training," *Atten. Percept. Psychophys.* 72, 454-469.
11. **Goupell, M. J.**, Majdak, P., and Laback, B. (2010). "Median-plane sound localization as a function of the number of spectral channels using a channel vocoder," *J. Acoust. Soc. Am.* 127, 990-1001.
12. **Goupell, M. J.** (2010). "Interaural fluctuations and the detection of interaural coherence. IV. The effect of compression on stimulus statistics," *J. Acoust. Soc. Am.* 128, 3691-3702.
13. Majdak, P., **Goupell, M. J.**, and Laback, B. (2011). "Two-dimensional localization of virtual sound sources in cochlear-implant listeners," *Ear Hear.* 32, 198-208.
14. **Goupell, M. J.** and Mostardi, M. J. (2012). "Evidence of the enhancement effect in electrical stimulation via electrode matching (L)," *J. Acoust. Soc. Am.* 131, 1007-1010.
15. **Goupell, M. J.**, Yu, G., and Litovsky, R. L. (2012). "The effect of an additional reflection in a precedence effect experiment," *J. Acoust. Soc. Am.* 131, 2958-2967.
16. Litovsky, R. Y., **Goupell, M. J.**, Godar, S., Grieco-Calub, T., Jones, G. L., Garadat, S. N., Agrawal, S., Kan, A., Todd, A., Hess, C., and Misurelli, S. (2012). "Studies on bilateral cochlear implants at the University of Wisconsin's Binaural Hearing and Speech Laboratory," *J. Am. Acad. Audiol.* 23, 476-494.
17. **Goupell, M. J.** (2012). "The role of envelope statistics in detecting changes in interaural correlation," *J. Acoust. Soc. Am.* 132, 1561-1572.
18. **Goupell, M. J.**, Kan, A., and Litovsky, R. Y. (2013). "Typical mapping procedures can produce non-centered auditory images in bilateral cochlear-implant users," *J. Acoust. Soc. Am.* 133, EL101-107.
19. Stilp, C. E., **Goupell, M. J.**, and Kluender, K. R. (2013). "Speech perception in simulated electric hearing exploits information-bearing acoustic change," *J. Acoust. Soc. Am.* 133, EL136-141.
20. **Goupell, M. J.**, Stoelb, C., Kan, A., and Litovsky, R. Y. (2013). "Effect of mismatched place-of-stimulation on the salience of binaural cues in conditions that simulate bilateral cochlear-implant listening," *J. Acoust. Soc. Am.* 133, 2272-2287.
21. Kan, A., Stoelb, C., Litovsky, R. Y., and **Goupell, M. J.** (2013). "Effect of mismatched place-of-stimulation on binaural fusion and lateralization in bilateral cochlear-implant users," *J. Acoust. Soc. Am.* 134, 2923-2936.
22. **Goupell, M. J.** and Litovsky, R. L. (2014). "The effect of interaural fluctuation rate on correlation change discrimination," *J. Assoc. Res. Otolaryngol.* 15, 115-129.
23. Churchill, T., Kan, A., **Goupell, M. J.**, Ihlefeld, A., Litovsky, R. Y. (2014). "Speech perception in noise with a harmonic complex excited vocoder," *J. Assoc. Res. Otolaryngol.* 15, 265-278.
24. Thakkar, T. and **Goupell, M. J.** (2014). "Internalized elevation perception of simple stimuli in cochlear-implant and normal-hearing listeners," *J. Acoust. Soc. Am.* 136, 841-852.

25. Churchill, T., Kan, A., **Goupell, M. J.**, and Litovsky, R. Y. (2014). "Spatial hearing benefits demonstrated with presentation of acoustic temporal fine structure cues in bilateral cochlear implant listeners," *J. Acoust. Soc. Am.* 136, 1246-1256.
26. **Goupell, M. J.** and Litovsky, R. Y. (2015). "Detection of changes in envelope correlation in bilateral cochlear-implant users," *J. Acoust. Soc. Am.* 137, 335-349.
27. Stilp, C. E. and **Goupell, M. J.** (2015). "Spectral and temporal resolutions of information-bearing acoustic changes for understanding vocoded sentences," *J. Acoust. Soc. Am.* 137, 844-855.
28. **Goupell, M. J.** (2015). "Interaural envelope correlation change discrimination in bilateral cochlear implantees: effects of mismatch, centering, and onset of deafness," *J. Acoust. Soc. Am.* 137, 1282-1297.
29. Kan, A., Litovsky, R. Y., and **Goupell, M. J.** (2015). "Effects of interaural pitch matching and auditory image centering on binaural sensitivity in cochlear implant users," *Ear Hear.* 36, e62-e68.
30. Fitzgerald, M. B., Kan, A., and **Goupell, M. J.** (2015). "Bilateral loudness balancing and distorted spatial maps in recipients of bilateral cochlear implants," *Ear Hear.* 36, e225-236.
31. **Goupell, M. J.** and Barrett, M. (2015). "Untrained listeners experience difficulty detecting interaural correlation changes in narrowband noises," *J. Acoust. Soc. Am.* 138, EL120-125.
32. Brown, A. D., Jones, H. G., Kan, A., Thakkar, T., Stecker, G. C., **Goupell, M. J.**, and Litovsky, R. Y. (2015). "Evidence for a neural source of the precedence effect in sound localization," *J. Neurophys.* 114, 2991-3001.
33. Bernstein, J. W., **Goupell, M. J.**, Schuchman, G., Rivera, A., and Brungart, D. S. (2016). "Having two ears facilitates the perceptual separation of concurrent talkers for bilateral and single-sided deaf cochlear implantees," *Ear Hear.* 37, 282-288.
34. Todd, A., **Goupell, M. J.**, and Litovsky, R. Y. (2016). "Binaural release from masking with single- and multi-electrode stimulation in children with cochlear implants," *J. Acoust. Soc. Am.* 140, 59-73.
35. **Goupell, M. J.**, Kan, A., and Litovsky, R. Y. (2016). "Spatial attention in bilateral cochlear-implant users," *J. Acoust. Soc. Am.* 140, 1652-1662.
36. Brown, A. D., Rodriguez, F., Portnuff, C. D., **Goupell, M. J.**, and Tollin, D. J. (2016). "Time-varying distortions of binaural information by bilateral hearing aids: Effects of nonlinear frequency compression," *Trends Hear.* 20, 2331216516668303.
37. Stakhovskaya, O. A. and **Goupell, M. J.** (2017). "Lateralization of interaural level differences with multiple electrode stimulation in bilateral cochlear-implant listeners," *Ear Hear.* 38, e22-e38.
38. Todd, A., **Goupell, M. J.**, and Litovsky, R. Y. (2017). "The relationship between intensity coding and binaural sensitivity in adults with cochlear implants," *Ear Hear.* 38, e128-e141.
39. Waked, A., Dougherty, S., and **Goupell, M. J.** (2017). "Vocoded speech understanding with simulated shallow insertion depths in adults and children," *J. Acoust. Soc. Am.* 141, EL45-EL50.
40. Jaekel, B. N., Newman, R. S., and **Goupell, M. J.** (2017). "Speech rate normalization and phonemic boundary perception in cochlear-implant users," *J. Sp. Lang. Hear. Res.* 60, 1398-1416.
41. **Goupell, M. J.**, Gaskins, C. R., Shader, M. J., Walter, E. P., Anderson, S., and Gordon-Salant, S. (2017). "Age-related differences in the processing of temporal envelope and spectral cues in a speech segment," *Ear Hear.* 38, e335-e342.
42. Presacco, A., Innes-Brown, H., **Goupell, M. J.**, and Anderson, S. (2017). "Effects of stimulus duration on event-related potentials recorded from cochlear-implant users," *Ear Hear.* 38, e389-e393.
43. Huang, Y. T., Newman, R., Catalano, A., and **Goupell, M. J.** (2017). "Using prosody to infer discourse status in cochlear-implant and normal-hearing listeners," *Cognition* 166, 184-200.

44. Ehlers, E., **Goupell, M. J.**, Zheng, Y., Godar, S., and Litovsky, R. Y. (2017). "Measuring binaural sensitivity in children who use bilateral cochlear implants," *J. Acoust. Soc. Am.* 141, 4264-4277.
45. Litovsky, R. Y., **Goupell, M. J.**, Kan, A., and Landsberger, D. M. (2017). "Use of research interfaces for studies with cochlear-implant users," *Trends Hear.* 21, 2331216517736464.
46. **Goupell, M. J.**, Stakhovskaya, O., and Bernstein, J. G. W. (2018). "Contralateral interference caused by binaurally presented competing speech in adult bilateral cochlear-implant users," *Ear Hear.* 39, 110-123.
47. Jaekel, B. N., Newman, R., and **Goupell, M. J.** (2018). "Age effects on perceptual restoration of degraded interrupted sentences," *J. Acoust. Soc. Am.* 143, 84-97.
48. **Goupell, M. J.**, Stoelb, C., Kan, A., and Litovsky, R. Y. (2018). "The effect of simulated interaural frequency mismatch on speech understanding and spatial release from masking," *Ear Hear.* 39, 895-905.
49. **Goupell, M. J.** and Stakhovskaya, O. A. (2018). "Across-channel interaural-level-difference processing demonstrates frequency dependence," *J. Acoust. Soc. Am.* 143, 645-658.
50. Bernstein, J. G. W., Stakhovskaya, O. A., Schuchman, G. I., Jensen, K. K., and **Goupell, M. J.** (2018). "Interaural-time-difference discrimination as a measure of place of stimulation for cochlear-implant users with single-sided deafness," *Trends Hear.* 22, 2331216518765514.
51. Cleary, M., Wilkinson, T., Wilson, L., and **Goupell, M. J.** (2018). "Memory span for spoken digits in adults with cochlear implants or typical hearing: Effects of age and identification ability," *J. Sp. Lang. Hear. Res.* 61, 2099-2114.
52. **Goupell, M. J.** and Stakhovskaya, O. A. (2018). "Across-frequency processing of interaural time and level differences in perceived lateralization," *Acta Acust. Unit. Acust.* 104, 758-761.
53. Anderson, S. A., Ellis, R., Mehta, J., **Goupell, M. J.** (2018). "Age-related differences in binaural masking level differences: Behavioral and electrophysiological evidence," *J. Neurophys.* 120, 2939-2952.
54. Zaleski-King, A., **Goupell, M. J.**, Barac-Cikoja, D., and Bakke, M. (2019). "Bimodal cochlear implant listeners' inability to perceive minimal audible angle differences," *J. Am. Acad. Aud.* 30, 659-671.
55. Gaskins, C. R., Jaekel, B. N., Gordon-Salant, S., **Goupell, M. J.**, and Anderson, S. (2019). "Aging effects on perceptual and electrophysiological responses to acoustic pulse trains as a function of rate" *J. Sp. Lang. Hear. Res.* 62, 1087-1098.
56. Roque, L., Gaskins, C. R., Gordon-Salant, S., **Goupell, M. J.**, and Anderson, S. (2019). "Age effects on neural representation and perception of silence duration cues in speech," *J. Sp. Lang. Hear. Res.* 62, 1099-1116.
57. **Goupell, M. J.**, Cosentino, S., Stakhovskaya, O. A., and Bernstein, J. G. W. (2019). "Interaural pitch-discrimination range effects for bilateral and single-sided deafness cochlear-implant users," *J. Assoc. Res. Otolaryngol.* 20, 187-203.
58. Todd, A., **Goupell, M. J.**, and Litovsky, R. Y. (2019). "Binaural unmasking with temporal envelope and fine structure in listeners with cochlear implants," *J. Acoust. Soc. Am.* 145, 2982-2993.
59. **Goupell, M. J.**, Fong, S., and Stakhovskaya, O. A. (2019). "The effect of envelope modulations on binaural processing," *Hear. Res.* 379, 117-127.
60. Kan, A., **Goupell, M. J.**, and Litovsky, R. Y. (2019). "Effect of interaural mismatch and channel separation on binaural fusion and lateralization in cochlear-implant and normal-hearing listeners," *J. Acoust. Soc. Am.* 146, 1448-1463.
61. Anderson, S., Easter, K., and **Goupell, M. J.** (2019). "Effects of rate and age in processing interaural time and level differences in normal-hearing and bilateral cochlear-implant listeners," *J. Acoust. Soc. Am.* 146, 3232-3254.

62. Xie, Z., Gaskins, C. R., Shader, M. J., Gordon-Salant, S., Anderson, S., and Goupell, M. J. (2019). "Age-related temporal processing deficits in word segments in adult cochlear-implant users," *Trends Hear.* 23, 2331216519886688.
63. Sheffield, S., Goupell, M. J., Spencer, N., Stakhovskaya, O. A., and Bernstein, J. G. W. (2020). "Binaural optimization of cochlear implants: Discarding frequency content without sacrificing head-shadow benefit," *Ear Hear.* 41, 576-590.
64. Shader, M. J., Nguyen, N., Hertzano, R., Eisenman, D. J., Anderson, S., Gordon-Salant, S., and Goupell, M. J. (2020) "The effect of stimulation rate on speech understanding in older cochlear-implant users," *Ear Hear.* 41, 640-651.
65. Bernstein, J. G. W., Stakhovskaya, O. A., Jensen, K. K., and **Goupell, M. J.** (2020) "Acoustic hearing can interfere with single-sided deafness cochlear-implant speech perception," *Ear Hear.* 41, 747-761.
66. Shader, M. J., Yancey, C. M., Gordon-Salant, S., and Goupell, M. J. (2020) "Spectral-temporal trade-off in vocoded speech understanding: Effect of age," *Ear Hear.* 41, 1226-1235.
67. Waddington, E., Jaekel, B. N., Tinnemore, A. R., Gordon-Salant, S., and Goupell, M. J. (2020) "Recognition of accented speech by cochlear-implant listeners: Benefit of audiovisual cues," *Ear Hear.* 41, 1236-1250.
68. Anderson, S., Roque, L., Gaskins, C., Gordon-Salant, S., and Goupell, M. J. (2020). "Age-related compensation mechanism revealed in the cortical representation of degraded speech," *J. Assoc. Res. Otolaryngol.* 21, 373-391.
69. Mayo, P. G. and Goupell, M. J. (2020) "The effect of cochlear-implant microphone placement on the acoustical bright spot and interaural level differences," *J. Acoust. Soc. Am.* 147, EL357-362.
70. Shader, M. J., Gordon-Salant, S., and Goupell, M. J. (2020). "The impact of aging and peripheral neural survival on temporal processing ability in cochlear-implant users: Amplitude modulation detection thresholds," *Trends Hear.* 24, 2331216520936160.
71. Xie, Z., Shader, M. J., Gordon-Salant, S., Anderson, S., and Goupell, M. J. (2020) "Letter to the Editor: Possible sex effects on the processing of temporal cues in word segments in adult cochlear-implant users," *Trends Hear.* 24, 2331216520946675.
72. Misurelli, S., **Goupell, M. J., Burg, E., Jocewicz, R., Kan, A., and Litovsky, R. Y.** (2020) "Auditory attention and spatial unmasking in children with cochlear implants," *Trends Hear.* 24, 2331216520946983.
73. Shader, M. J., Gordon-Salant, S., and Goupell, M. J. (2020). "The impact of aging and peripheral neural survival on temporal processing ability in cochlear-implant users: Gap detection thresholds," *Trends Hear.* 24, 2331216520956560.
74. Tinnemore, A. R., Gordon-Salant, S., and Goupell, M. J. (2020) "Audiovisual speech recognition with a cochlear implant and increased perceptual and cognitive demands," *Trends Hear.* 24, 2331216520960601.
75. **Goupell, M. J., Draves, G., and Litovsky, R. Y.** (2020). "Understanding vocoded words and sentences in quiet and multi-talker babble with children and adults," *PLOS ONE.* 15, 1-11.
76. **Goupell, M. J., Eisenberg, D., and DeRoy Milvae, K.** (2021). "Dichotic listening performance with cochlear-implant simulations of ear asymmetry is consistent with difficulty ignoring clearer speech," *Atten. Perc. Psych.* 83, 2083-2101.
77. Jensen, K. K., Cosentino, S., Bernstein, J. G. W., Stakhovskaya, O. A., and Goupell, M. J. (2021). "A comparison of place-pitch-based interaural electrode matching methods in bilateral cochlear-implant users," *Trends Hear.* 25, 2331216521997324.
78. Jaekel, B. N., Weinstein, S., Newman, R. S., and Goupell, M. J. (2021) "Access to semantic cues does not promote perceptual restoration of interrupted speech in cochlear-implant users," *J. Acoust. Soc. Am.* 149, 1488-1497.
79. Yun, D., Jennings, T. R., Kidd Jr., G., and Goupell, M. J. (2021) "Benefits of acoustic beamforming for bilateral cochlear-implant users," *J. Acoust. Soc. Am.* 149, 3052-3072.

80. Johnson, K. C., Xie, Z., Shader, M. J., Mayo, P. G., and **Goupell, M. J.** (2021) “Effect of chronological age on pulse rate discrimination in adult cochlear-implant users,” *Trends Hear.* 25, 23312165211007367.
81. Bakal, T. A., DeRoy Milvae, K., Chen, C., and **Goupell, M. J.** (2021) “Head shadow, summation, and squelch in bilateral cochlear implant users with linked automatic gain controls,” *Trends Hear.* 25, 23312165211018147.
82. Xie, Z., Stakhovskaya, O. A., **Goupell, M. J.**, and Anderson, S. (2021) “Aging effects on cortical responses to tones and speech in adult cochlear-implant users,” *J. Assoc. Res. Otolaryngol.* 22, 719-740.
83. Gray, W. O., Mayo, P. G., **Goupell, M. J.**, and Brown, A. D. (2021) “Transmission of binaural cues by bilateral cochlear implants: Examining the impacts of bilaterally independent spectral peak-picking, pulse timing, and compression,” *Trends Hear.* 25, 23312165211030411.
84. DeRoy Milvae, K., Kuchinsky, S. E., Stakhovskaya, O. A., and **Goupell, M. J.** (2021) “Dichotic listening performance and effort as a function of spectral resolution,” *J. Acoust. Soc. Am.* 150, 920-935.
85. Heffner, C., Jaekel, B. N., Newman, R. S., and **Goupell, M. J.** (2021). “Accuracy and cue use in word segmentation for cochlear-implant listeners and normal-hearing listeners presented vocoded speech,” *J. Acoust. Soc. Am.* 150, 2935-2951.
86. **Goupell, M. J.**, Best, V., and Colburn, H. S. (2021) “Intracranial lateralization bias observed in the presence of symmetrical hearing thresholds,” *JASA Express Lett.* 1 (10), 104401.
87. Bernstein, J. G. W., Jensen, K. K., Stakhovskaya, O. A., Noble, J. H., Hoa, M., Kim, H. J., Shih, R., Kolberg, E., Cleary, M., and **Goupell, M. J.** (2021). “Interaural place-of-stimulation mismatch estimates using CT scans and binaural perception, but not pitch, are consistent in cochlear-implant users,” *J. Neurosci.* 41, 10161-10178.
88. Mayo, P. G., Saunders, P., and **Goupell, M. J.** (2021). “Interaural-time-difference thresholds for broad bandlimited pulses are affected by relative bandwidth not temporal envelope sharpness,” *JASA Express Lett.* 1 (12), 124401.
89. Shader, M. J., Kwon, B. J., Gordon-Salant, S., and **Goupell, M. J.** (2022). “Open-set phoneme recognition performance with varied temporal cues in younger and older cochlear-implant users,” *J. Sp. Lang. Hear. Res.* 65, 1196-1211.
90. Martin, I. A., **Goupell, M. J.**, and Huang, Y. T. (2022) “Children’s syntactic parsing and sentence comprehension with a degraded auditory signal,” *J. Acoust. Soc. Am.* 151, 699-711.
91. DeVries, L., Anderson, S., **Goupell, M. J.**, Smith, E., and Gordon-Salant, S. (2022) “Effects of aging and hearing loss on perceptual and electrophysiological pulse rate discrimination,” *J. Acoust. Soc. Am.* 151, 1639-1650.
92. Rosen, B. and **Goupell, M. J.** (2022). “The effect of target and interferer frequency on across-frequency binaural interference of interaural-level-difference sensitivity,” *J. Acoust. Soc. Am.* 151, 924-938.
93. **Goupell, M. J.**, Noble, J. H., Phatak, S. A., Kolberg, E., Cleary, M., Stakhovskaya, O. A., Jensen, K. K., Hoa, M., Kim, H. J., and Bernstein, J. G. W. (2022). “Computed-tomography estimates of interaural mismatch in insertion depth and scalar location in bilateral cochlear-implant users,” *Otol. Neurotol.* 43, 666-675.
94. Xie, Z., Anderson, S., and **Goupell, M. J.** (2022). “Stimulus context affects the perception of temporal cues in word segments in adult cochlear-implant users,” *J. Acoust. Soc. Am.* 151, 2149-2158.
95. Jaekel, B. J., Weinstein, S., Newman, R. S., and **Goupell, M. J.** (2022). “Impacts of device and signal processing factors on perceptual restoration in cochlear-implant users,” *J. Acoust. Soc. Am.* 151, 2898-2915.
96. **Goupell, M. J.** (2022). “Effect of age on across-frequency binaural interference of interaural-level-difference sensitivity,” *Front. Aging Neurosci.* 14, 887401.

97. Anderson, S., DeVries, L., Smith, E., **Goupell, M. J.**, and Gordon-Salant, S. (2022) “Rate discrimination training may partially restore temporal processing abilities from age-related deficits,” *J. Assoc. Res. Otolaryngol.* 23, 771-786.
98. Gibbs, B., II, Bernstein, J. G. W., Brungart, D. S., and **Goupell, M. J.** (2022). “Effects of better-ear glimpsing, binaural unmasking, and spectral resolution on spatial release from masking in cochlear-implant users,” *J. Acoust. Soc. Am.* 152, 1230-1246.
99. Tinnemore, A. R., Montero, L., Gordon-Salant, S., and **Goupell, M. J.** (2022) “The intelligibility of time-compressed speech as a function of age in listeners with cochlear implants or normal hearing,” *Front. Aging. Neurosci.* 14, 887581.
100. Cleary, M., Bernstein, J. G. W., Stakhovskaya, O. A., Noble, J., Kolberg, E., Hoa, M., Kim J., and **Goupell, M. J.** (2022) “The relationship between interaural insertion-depth differences, scalar location, and interaural time-difference processing in adult bilateral cochlear-implant listeners,” *Trends Hear.* 26, 23312165221129165.
101. Johns, M. A., Calloway, R. C., Phillips, I., Karuzis, V. P., Dutta, K., Smith, E., Shamma, S. A., **Goupell, M. J.**, and Kuchinsky, S. E. (2023). “Individual differences in speech stream segregation and working memory differentially predict performance on a stochastic figure-ground task,” *J. Acoust. Soc. Am.* 153, 286-303.
102. Mayo, P. G., Brown, A., D. and **Goupell, M. J.** (2023). “Wave interference at the contralateral ear helps explain non-monotonic envelope interaural time differences as a function of azimuth,” *JASA Express Lett.* 3 (3), 034403.
103. Cleary, M., DeRoy Milvae, K., Nguyen, N., Bernstein, J. G. W., and **Goupell, M. J.** (2023). “Effect of experimentally introduced interaural frequency mismatch on sentence identification in bilateral cochlear-implant listeners,” *JASA Express Lett.* 3 (4), 044401.
104. **Goupell, M. J.**, Cleary, M. I., and Bernstein, J. G. W. (in press). “Discussion of measurement and analysis techniques to estimate interaural place-of-stimulation mismatch for binaural perception, Re: Staisloff and Aronoff (2021). Comparing methods for pairing electrodes across ears with cochlear implants, *Ear Hear.*, 42(5), 1218-1227,” *Ear Hear.*

II.D. Published Conference Proceedings

II.D.1. Refereed Conference Proceedings

1. **Goupell, M. J.** and Hartmann, W. M. (2004). “Spectral analysis for the ear,” Proc. 18th International Congress on Acoustics, We2E2.
2. Majdak, P., Laback, B., **Goupell, M. J.**, and Mihocic, M. (2008). “The accuracy of localizing virtual sound sources: Effects of pointing method and visual environment,” 124th convention of the Audio Engineering Society.
3. Khalil, R. M., Papanicolaou, A., Chou, R. T., Gibbs, B. E. II, Anderson, S., Gordon-Salant, S., Cummings, M., and **Goupell, M. J.** (2023). “Using machine learning to understand the relationships between audiometric data, speech perception, temporal processing, and cognition,” 2023 IEEE International Conference on Acoustics, Speech, and Signal Processing, Rhodes, Greece.
4. **Goupell, M. J.**, Davoodian, M., Weinstein, S., Gadzinski, D., Zotkin, D., Sethunath, K., and Duraiswami, R. (2023). “Rapid audiometric evaluation for personalized headphone listening,” 2023 IEEE International Conference on Acoustics, Speech, and Signal Processing, Rhodes, Greece.

II.D.2. Non-Refereed Conference Proceedings

1. **Goupell, M. J.** (2018). “Hearing with two ears: Coordinating cochlear implants for binaural hearing,” A. G. Bell Research Symposium on “The Binaural Brain: How it Perceives Speech, Language, and Challenges to Auditory Processing,” Scottsdale, AZ, June 2018.

II.E. Conferences, Workshops, and Talks

II.E.1. Keynotes

1. **Goupell, M. J.** “Binaural processing limitations in bilateral cochlear-implant users,” keynote speaker at the CEBH-NIH Joint Meeting, Bethesda, MD, October 2014.

II.E.2. Invited Talks

1. **Goupell, M. J.** “The problem of presenting binaural information to bilateral cochlear implants,” Maryland Academy of Audiology, Timonium, MD, September 2012.
2. **Goupell, M. J.** “Individual variability and the effects of aging in cochlear-implant users,” 5th Aging and Speech Communication Conference, Bloomington, IN, October 2013.
3. **Goupell, M. J.** “Considerations for mapping of cochlear implants for users with substantial residual hearing,” Maryland Academy of Audiology, Linthicum Heights, MD, October 2015.
4. **Goupell, M. J.** “Better-ear glimpsing for fully and partially degraded speech signals,” 173rd Meeting of the Acoustical Society of America, Boston, MA, June 2017.

II.E.3. Refereed Presentations

1. **Goupell, M. J.** and Schmidt, J. R. “Modeling the flight of a Frisbee,” Joint Annual Meeting Michigan Section of the Mathematical Association of America, Holland, MI, May 2001.
2. **Goupell, M. J.**, Zhang, X., and Hartmann, W. M. “Cancelled harmonics: How high does the effect go?” 145th Meeting of the Acoustical Society of America, Nashville, TN, May 2003.
3. **Goupell, M. J.** and Hartmann, W. M. “How do listeners detect interaural coherence?” 147th Meeting of the Acoustical Society of America, New York, NY, May 2004.
4. **Goupell, M. J.** and Hartmann, W. M. “Binaural models for the detection of interaural incoherence,” 149th Meeting of the Acoustical Society of America, Vancouver, Canada, May 2005.
5. **Goupell, M. J.** and Hartmann, W. M. “Modeling the detection of interaural incoherence,” 151st Meeting of the Acoustical Society of America, Providence, RI, June 2006.
6. **Goupell, M. J.** and Hartmann, W. M. “Interaural phase and level fluctuations as the basis of interaural incoherence detection,” 14th International Symposium on Hearing, Oldenburg, Germany, August 2006.
7. **Goupell, M. J.**, Laback, B., Majdak, P., and Baumgartner, W.-D. “Effect of different frequency mappings on speech intelligibility for cochlear implant listeners,” 33rd German Annual Conference on Acoustics (DAGA), Stuttgart, Germany, March 2007.
8. Laback, B., Majdak, P., and **Goupell, M. J.** “Binaural jitter improves interaural time difference sensitivity in electric and acoustic hearing,” Association for Research in Otolaryngology 31st Midwinter Meeting, Phoenix, AZ, February 2008.
9. Laback, B., Majdak, P., and **Goupell, M. J.** “Binaural jitter improves ITD sensitivity of cochlear implantees and normal hearing listeners,” 34th German Convention on Acoustics (DAGA), Dresden, Germany, March 2008.
10. Majdak, P., Laback, B., and **Goupell, M. J.** “Kopf- und Handzeigermethode in der Lokalisation von Schallquellen,” 34th German Convention on Acoustics (DAGA), Dresden, Germany, March 2008.
11. **Goupell, M. J.**, Laback, B., Majdak, P., and Baumgartner, W.-D. “Spectral profile analysis in cochlear implant listeners,” 34th German Convention on Acoustics (DAGA), Dresden, Germany, March 2008.
12. Laback, B., Majdak, P., and **Goupell, M. J.** “Binaural jitter improves sensitivity to interaural time differences in electric and acoustic hearing,” Acoustics’08, Paris, France, June 2008.
13. Majdak, P., Laback, B., and **Goupell, M. J.** “3D-localization of virtual sound sources in normal-hearing and cochlear-implant listeners,” Acoustics’08, Paris, France, June 2008.
14. **Goupell, M. J.**, Laback, B., and Majdak, P. “Interaural-time-difference sensitivity to acoustic temporally-jittered pulse trains,” Acoustics’08, Paris, France, June 2008.

15. Majdak, P., Laback, B., and **Goupell, M. J.** “Localization of sound sources in median-plane with channelized head-related transfer functions,” 35th German Convention on Acoustics (DAGA), Rotterdam, Netherlands, March 2009.
16. **Goupell, M. J.**, Hancock, K., Majdak, P., Laback, B., and Delgutte, B. “Binaurally-coherent jitter improves neural and perceptual ITD sensitivity in normal and electric hearing,” 15th International Symposium on Hearing, Salamanca, Spain, June 2009.
17. **Goupell, M. J.** and Litovsky, R. Y. “Modeling the precedence effect for multiple echoes,” 159th Meeting of the Acoustical Society of America, Baltimore, MD, April 2010.
18. **Goupell, M. J.**, Kan, A., and Litovsky, R. Y. “Quantifying dynamic interaural level differences introduced in modulated electrical stimuli,” 161st Meeting of the Acoustical Society of America, Seattle, WA, May 2011.
19. **Goupell, M. J.** and Litovsky, R. Y. “Considerations on bilateral mapping of cochlear-implant users,” 13th Symposium on Cochlear Implants in Children, Chicago, IL, July 2011.
20. **Goupell, M. J.**, Kan, A., and Litovsky, R. Y. “The potential problem of interaural decorrelation for modulated stimuli in bilateral cochlear-implant users,” 15th Conference on Implantable Auditory Prostheses, Pacific Grove, CA, July 2011.
21. Kan, A., Stoelb, C., **Goupell, M. J.**, and Litovsky, R. Y. “Possible implications of interaural mismatch on spatial release from masking in cochlear implant listeners,” Acoustics 2012 and 163rd Meeting of the Acoustical Society of America, Hong Kong, May 2012.
22. Litovsky, R. Y., **Goupell, M. J.**, Kan, A., Misurelli, S., and Stoelb, C. “Effect of degraded binaural cues in deaf cochlear implant user and normal hearing listeners on spatial release from masking,” Acoustics 2012 and 163rd Meeting of the Acoustical Society of America, Hong Kong, May 2012.
23. Stakhovskaya, O. A., Thakkar, T., and **Goupell, M. J.** “Attempts to remove inconsistent binaural cues in multi-electrode stimulation,” American Academy of Audiology Academy Research Conference, Anaheim, CA, April 2013.
24. **Goupell, M. J.**, Kan, A., Eisenberg, D., Litovsky, R. Y. “Spatial attention in bilateral cochlear-implant users,” 16th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2013.
25. **Goupell, M. J.** and Litovsky, R. Y. “Multi-channel processing of inconsistent interaural time differences,” Association for Research in Otolaryngology 37th Midwinter Meeting, San Diego, CA, February 2014.
26. **Goupell, M. J.** “Do envelope modulations disrupt binaural signals in bilateral cochlear implantees?,” 13th International Conference on Cochlear Implants and Other Implantable Auditory Technologies, Munich, Germany, June 2014.
27. Shader, M. J., Nguyen, N., Hertzano, R., Eisenman, D., Anderson, S., Gordon-Salant, S., and **Goupell, M. J.** “Acute effect of stimulation rate on speech recognition scores in young, middle-age, and older adult cochlear-implant users,” 13th International Conference on Cochlear Implants and Other Implantable Auditory Technologies, Munich, Germany, June 2014.
28. Gaskins, C. R., Shader, M. J., Gordon-Salant, M. J., Anderson, S., and **Goupell, M. J.** “Age-related differences in consonant perception in real and simulated cochlear-implant users,” Association for Research in Otolaryngology 38th Midwinter Meeting, Baltimore, MD, February 2015.
29. Shader, M. J., Nguyen, N., Hertzano, R., Eisenman, D. J., Anderson, S., Gordon-Salant, S., and **Goupell, M. J.** “Do lower stimulation rates improve speech understanding in typically low-performing groups of cochlear-implant users?” Association for Research in Otolaryngology 38th Midwinter Meeting, Baltimore, MD, February 2015.
30. Bernstein, J. G. W., **Goupell, M. J.**, Wess, J., Schuchman, G., Rivera, A., and Brungart, D. “Binaural processing for cochlear implantees with single-sided deafness,” Association for Research in Otolaryngology 38th Midwinter Meeting, Baltimore, MD, February 2015.

31. **Goupell, M. J.**, Bernstein, J. G. W., Brungart, D., Eisenberg, D., Kan, A., and Litovsky, R. Y. “Binaural unmasking for bilateral cochlear implantees,” Association for Research in Otolaryngology 38th MidWinter Meeting, Baltimore, MD, February 2015.
32. Todd, A. E., **Goupell, M. J.**, and Litovsky, R. Y. “Optimizing interaural cues for bilateral cochlear implant users,” Association for Research in Otolaryngology 38th Midwinter Meeting, Baltimore, MD, February 2015.
33. Huang, Y., Catalano, A., Newman, R., and **Goupell, M. J.** “Using prosody to infer discourse status in normal-hearing and cochlear-implant listeners,” Paper presented at the 28th annual CUNY conference on Human Sentence Processing. Los Angeles, CA. March 2015.
34. **Goupell, M. J.** “Across-channel processing of interaural level differences,” 169th Meeting of the Acoustical Society of America, Pittsburgh, PA, May 2015.
35. Bernstein, J. G. W., **Goupell, M. J.**, Schuchman, G. I., Rivera, A. R., and Brungart, D. S. “Binaural unmasking for cochlear implantees with single-sided deafness,” 17th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2015.
36. **Goupell, M. J.**, Bernstein, J. G. W., and Brungart, D. “Better-ear glimpsing inefficiency in bilateral cochlear-implant listeners,” 17th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2015.
37. Anderson, S., and **Goupell, M. J.** “Effects of aging and bandwidth on the binaural masking level difference assessed with electrophysiological and psychophysical measures,” Association for Research in Otolaryngology 39th Midwinter Meeting, San Diego, CA, February 2016.
38. **Goupell, M. J.**, and Rosen, B. “Interaural level difference processing as a function of frequency,” 172th Meeting of the Acoustical Society of America, Honolulu, Hawaii, November 2016.
39. **Goupell, M. J.**, Stakhovskaya, O. A., and Bernstein, J. G. W. “For some bilateral cochlear implantees, a second implant can cause interference rather than improved speech understanding in the presence of competing speech,” 172th Meeting of the Acoustical Society of America, Honolulu, Hawaii, November 2016.
40. Bernstein, J. G. W., **Goupell, M. J.**, and Stakhovskaya, O. A. “Acoustic hearing interferes with cochlear-implant speech perception for single-sided deaf listeners,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
41. Bernstein, J. G. W., **Goupell, M. J.**, Wess, J. M., Stakhovskaya, O. A., and Brungart, D. S. “Having two ears can facilitate or interfere with the perceptual separation of concurrent talkers for bilateral and single-sided deafness cochlear-implant listeners,” 173rd Meeting of the Acoustical Society of America, Boston, MA, June 2017.
42. Shader, M. J., Gordon-Salant, S., and **Goupell, M. J.** “Age-related auditory temporal processing deficits in cochlear-implant users,” 18th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2017.
43. Anderson, S., Kronzek, E., Chisholm, J., Gordon-Salant, S., and **Goupell, M. J.** “Training effects on perception and neural representation of temporal speech cues,” 7th Aging and Speech Communication Conference, Tampa, FL, November 2017.
44. **Goupell, M. J.**, Stakhovskaya, O. A., Fong, S., and Milvae, K. “Effect of envelope modulations in bilateral cochlear-implant listeners,” Association for Research in Otolaryngology 41st MidWinter Meeting, San Diego, CA, February 2018.
45. Milvae, K. D., Kuchinsky, S. E., Stakhovskaya, O. A., and **Goupell, M. J.** “Dichotic listening performance and listening effort for asymmetrical inputs,” 175th Meeting of the Acoustical Society of America, Minneapolis, MN, May 2018.
46. Bernstein, J. G. W., Stakhovskaya, O. A., Jensen, K. K., and **Goupell, M. J.** “Measuring spectral asymmetry for cochlear-implant listeners with single-sided deafness,” 175th Meeting of the Acoustical Society of America, Minneapolis, MN, May 2018.
47. **Goupell, M. J.**, Stakhovskaya, O. A., and Bernstein, J. G. W. “Binaural speech unmasking and interference in adult bilateral cochlear-implant users,” 175th Meeting of the Acoustical Society of America, Minneapolis, MN, May 2018.

48. Anderson, S., Chisholm, J., Kronzek, E., Gordon-Salant, S., and **Goupell, M. J.** “Training effects on perception and neural representation of temporal speech cues,” Gordon Research Conference, Hong Kong, China, June 2018.
49. **Goupell, M. J.** and Stakhovskaya, O. A. “Across-frequency processing of interaural time and level differences in perceived lateralization,” 18th International Symposium on Hearing, Snekkersten, Denmark, June 2018.
50. Stakhovskaya, O. A., Bernstein, J. G. W., Noble, J. H., Jensen, K. K., Hoa, M., Kim, H. J., and **Goupell, M. J.** “Does electrode placement affect the interaural-time-difference acuity in bilateral cochlear-implant listeners?” 176th Meeting of the Acoustical Society of America, Victoria, BC, November 2018.
51. Milvae, K. D., Kuchinsky, S., Stakhovskaya, O. A., and **Goupell, M. J.** “The effect of spectral resolution on dichotic listening performance and effort,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
52. Jaekel, B. N., Newman, R. N., and **Goupell, M. J.** “Benefits of recruiting age-matched normal-hearing control groups in cochlear implant speech processing research,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
53. **Goupell, M. J.**, Best, V., Nothoft, J., and Colburn, H. S. “Revisiting perceived intracranial lateralization for stimuli with interaural time differences that are larger than the head,” 177th Meeting of the Acoustical Society of America, Louisville, KY, May 2019.
54. Bernstein, J. G. W., Stakhovskaya, O. A., Jensen, K. K., and **Goupell, M. J.** “When having two ears produces interference instead of a speech-perception advantage,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
55. Milvae, K. D., Kuchinsky, S. E., and **Goupell, M. J.** “Dichotic listening performance and effort in bilateral cochlear-implant and normal-hearing listeners,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
56. **Goupell, M. J.** and Bernstein, J. G. W. “Contralateral speech interference in cochlear-implant users worsens with age: Neural plasticity or attention?” 8th Aging and Speech Communication Conference, Clearwater, FL, November 2019.
57. Milvae, K. D., Bakal, T. A., Gaskins, C. R., Chen, C., Stein, A., and **Goupell, M. J.** “Sound localization and spatial release from masking in bilateral cochlear implant listeners with linked automatic gain controls,” 20th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2021.
58. Xie, Z., Johnson, K. C., Shader, M. J., Mayo, P. G., Gibbs, B. E., and **Goupell, M. J.** “Effect of chronological age on pulse rate discrimination in adult cochlear-implant users,” 20th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2021.
59. Mayo, P. G., Brown, A. D., **Goupell, M. J.** “A creeping-wave elliptic-head model that explains non-monotonic envelope interaural time differences,” 182nd Meeting of the Acoustical Society of America, Denver, CO, May 2022.
60. Bernstein, J. G. W., Eitel, M. M., Phatak, S. A., Jensen, K., Pillion, E. M., Dirks, C., and **Goupell, M. J.** “Contralateral unmasking for single-sided-deafness cochlear implant users with shifted frequency assignments to reduce interaural place mismatch,” 182nd Meeting of the Acoustical Society of America, Denver, CO, May 2022.
61. DeRoy Milvae, K., Abramowitz, J. C., Kuchinsky, S. E., and **Goupell, M. J.** “Aging effects on listening effort in cochlear-implant users,” 182nd Meeting of the Acoustical Society of America, Denver, CO, May 2022.
62. **Goupell, M. J.**, Xie, Z., Gaskins, C. R., Anderson, S., and Gordon-Salant, S. “Assessing age-related temporal processing deficits with single word contrasts in cochlear-implant users,” 182nd Meeting of the Acoustical Society of America, Denver, CO, May 2022.
63. **Goupell, M. J.** and Bilokon, A. “Support for the frequency dominance region explanation of lateralization of larger than physiologically possible interaural time differences,” 19th International Symposium on Hearing, Lyon, France, June 2022.

64. Bernstein, J. G. W., Zuckerman Schopf, D., Beinke, T., Cox, M., and **Goupell, M. J.** “Contralateral speech interference with single-sided deafness cochlear implants: A general selective attention deficit or specific to asymmetric experience?” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.

II.E.5. Refereed Posters

1. **Goupell, M. J.** “Angular dependence of light charged particle correlations,” APS Division of Nuclear Physics Meeting, October 1998.
2. **Goupell, M. J.** “Centrality dependence of charged particle ratios at STAR,” APS Division of Nuclear Physics Meeting, October 2000.
3. **Goupell, M. J.** and Hartmann, W.M. “Unmasking the harmonics of a complex tone,” 150th Meeting of the Acoustical Society of America, Minneapolis, MN, October 2005.
4. **Goupell, M. J.**, Laback, B., Majdak, P., and Baumgartner, W.-D. “Sensitivity to spectral peaks and notches in cochlear implant listeners,” 13th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2007.
5. **Goupell, M. J.**, Laback, B., Majdak, P., and Baumgartner, W.-D. “Effect of frequency-place mapping on speech intelligibility: Implications for a cochlear-implant strategy,” 13th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2007.
6. Majdak, P., **Goupell, M. J.**, Laback, B., and Baumgartner, W.-D. “Frequency-place mapping and speech intelligibility: Implications for a cochlear-implant localization strategy,” Association for Research in Otolaryngology 31st Midwinter Meeting, Phoenix, AZ, February 2008.
7. **Goupell, M. J.**, Laback, B., Majdak, P., and Baumgartner, W.-D. “Sensitivity to spectral features for sound localization in cochlear-implant listeners,” Association for Research in Otolaryngology 31st Midwinter Meeting, Phoenix, AZ, February 2008.
8. Majdak, P., Laback, B., and **Goupell, M. J.** “3-D sound localization in cochlear-implant listeners,” 14th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2009.
9. **Goupell, M. J.**, Laback, B., and Majdak, P. “The localization of channel-vocoded stimuli in the median plane,” 14th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2009.
10. **Goupell, M. J.** “The normalized cross-correlation function including peripheral compression: A case of mistaken identity?” Association for Research in Otolaryngology 33rd Midwinter Meeting, Anaheim, CA, February 2010.
11. **Goupell, M. J.** and Litovsky, R. Y. “Rate adaptation in binaural detection,” Association for Research in Otolaryngology 33rd Midwinter Meeting, Anaheim, CA, February 2010.
12. Harris, S. J., Stiepan, S. M., Kishel-Cross, E., Born, M. L., **Goupell, M. J.**, Tagg, D. J., and Litovsky, R. Y. “Novel approaches for studying spatial hearing in young bilateral cochlear implant users,” 11th Annual International Conference on Cochlear Implants and other Auditory Implantable Technologies, June 2010.
13. **Goupell, M. J.** and Litovsky, R. Y. “Dynamic binaural detection in bilateral cochlear-implant users: Implications for processing schemes,” Association for Research in Otolaryngology 34th Midwinter Meeting, Baltimore, MD, February 2011.
14. Kan, A., Stoelb, C., **Goupell, M. J.**, and Litovsky, R. Y. “Investigating the impact of mismatched electrode pairs in simulated bilateral cochlear implants on binaural sensitivity,” Association for Research in Otolaryngology 34th Midwinter Meeting, Baltimore, MD, February 2011.
15. **Goupell, M. J.** and Mostardi, M. J. “Observing the enhancement effect in cochlear-implant listeners,” 15th Conference on Implantable Auditory Prostheses, Pacific Grove, CA, July 2011.
16. Churchill, T., Ihlefeld, A., Kan, A., **Goupell, M. J.**, Stoelb, C., and Litovsky, R. Y. “Speech perception improves with randomization of starting phases in harmonic complex excited vocoder,” 15th Conference on Implantable Auditory Prostheses, Pacific Grove, CA, July 2011.
17. Kan, A., Stoelb, C., **Goupell, M. J.**, and Litovsky, R. Y. “Effect of mismatched place-of-stimulation on binaural sensitivity in bilateral cochlear-implant users,” 15th Conference on Implantable Auditory Prostheses, Pacific Grove, CA, July 2011.

18. **Goupell, M. J., Kan, A.,** and Litovsky, R. Y. “Attending to a single ear using bilateral cochlear implants,” Association for Research in Otolaryngology 35th Midwinter Meeting, San Diego, CA, February 2012.
19. **Kan, A., Bostwick, E. M., Stoelb, C., Goupell, M. J.,** and Litovsky, R. Y. “Investigating the effect of interaural mismatch and channel interactions in multi-electrode stimulation using a bilateral cochlear-implant simulator,” Association for Research in Otolaryngology 35th Midwinter Meeting, San Diego, CA, February 2012.
20. Fitzgerald, M. B., **Kan, A.,** Litovsky, R. Y., and **Goupell, M. J.** “Conventional mapping procedures are non-optimal for presenting consistent sound localization information in bilateral cochlear implant users,” 12th International Conference on Cochlear Implants, Baltimore, MD, May 2012.
21. **Goupell, M. J.** “Modeling interaural correlation change detection in Gaussian and low-fluctuation Noises,” 16th International Symposium on Hearing, Cambridge, England, July 2012.
22. Depireux, D. A., Englitz, B., and **Goupell, M. J.** “A monaural analogue of the Huggins Pitch? Physiology and Psychophysics,” 16th International Symposium on Hearing, Cambridge, England, July 2012.
23. **Stoelb, C. A., Kan, A., Goupell, M. J.,** and Litovsky, R. Y. “The effects of interaural frequency mismatch on spatial release from masking,” Association for Research in Otolaryngology 36th Midwinter Meeting, Baltimore, MD, February 2013.
24. **Thakkar, T., Stakhovskaya, O. A.,** and **Goupell, M. J.** “Vertical perception of simple stimuli in normal-hearing and cochlear-implant listeners,” Association for Research in Otolaryngology 36th Midwinter Meeting, Baltimore, MD, February 2013.
25. **Stakhovskaya, O. A., Thakkar, T.,** and **Goupell, M. J.** “Lateralization of interaural level differences in multi-channel electrical stimulation,” Association for Research in Otolaryngology 36th Midwinter Meeting, Baltimore, MD, February 2013.
26. **Goupell, M. J.** “The effect of interaural frequency mismatch on correlation change detection in bilateral cochlear-implant users,” Association for Research in Otolaryngology 36th MidWinter Meeting, Baltimore, MD, February 2013.
27. **Goupell, M. J., Stakhovskaya, O. A., Griffith, K., Thakkar, T.,** and Gordon-Salant, S. “Comparing enhancement of signal detection in normal-hearing, hearing-impaired, and cochlear-implant listeners: Effects of stimulus level and spectral spacing,” Association for Research in Otolaryngology 36th Midwinter Meeting, Baltimore, MD, February 2013.
28. **Eisenberg, D.,** and **Goupell, M. J.** “Asymmetric signal degradation causes difficulty in understanding speech in spatial attention tasks,” Association for Research in Otolaryngology 36th Midwinter Meeting, Baltimore, MD, February 2013.
29. **Thakkar, T., Stakhovskaya, O. A.,** and **Goupell, M. J.** “Cochlear implant listeners demonstrate elevation perception of single electrode stimuli,” 16th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2013.
30. **Stakhovskaya, O. A., Thakkar, T.,** and **Goupell, M. J.** “Multi-electrode lateralization using interaural level differences in bilateral cochlear implant subjects,” 16th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2013.
31. Bernstein, J. W., **Goupell, M. J.,** Iyer, N., Schuchman, G., Rivera, A., and Brungart, D. S. “Binaural speech-stream segregation for single-sided deaf and bilateral cochlear implantees,” 16th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2013.
32. Fitzgerald, M. F., **Kan, A.,** and **Goupell, M. J.** “Bilateral loudness balancing and distorted spatial maps in recipients of bilateral cochlear implants,” 16th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2013.
33. **Churchill, T., Kan, A., Goupell, M. J.,** and Litovsky, R. Y. “Mixed stimulation rates for encoding temporal cues in bilateral cochlear implants,” 16th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2013.

34. Todd, A. E., **Goupell, M. J.**, and Litovsky, R. Y. “Binaural unmasking with temporal fine structure in cochlear implant listeners,” 16th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2013.
35. Brown, A. D., Jones, H. G., Kan, A. H., **Goupell, M. J.**, Stecker, G. C., and Litovsky, R. Y. “The precedence effect: Insights from electric hearing,” 16th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2013.
36. Todd, A., **Goupell, M. J.**, and Litovsky, R. Y. “Binaural unmasking with temporal envelope and fine structure in cochlear implant listeners,” Association for Research in Otolaryngology 37th Midwinter Meeting, San Diego, CA, February 2014.
37. Easter, K. E. and **Goupell, M. J.** “Lateralization of modulated- and constant-amplitude pulse trains in normal-hearing and bilateral cochlear-implant listeners,” Association for Research in Otolaryngology 37th Midwinter Meeting, San Diego, CA, February 2014.
38. Stilp, C. and **Goupell, M. J.** “Spectral and temporal resolution of information-bearing acoustic changes in vocoded sentences,” Association for Research in Otolaryngology 37th Midwinter Meeting, San Diego, CA, February 2014.
39. Kan, A., **Goupell, M. J.**, and Litovsky, R. Y. “Investigating the effects of interaural place-of-stimulation mismatch and channel interaction in multi-electrode stimulation,” Association for Research in Otolaryngology 37th Midwinter Meeting, San Diego, CA, February 2014.
40. Dougherty, S., Waked, A., and **Goupell, M. J.** “Speech understanding in adults and children for sentences with cochlear-implant simulated spectral degradation and shallow insertion depth,” 167th Meeting of the Acoustical Society of America, Providence, RI, May 2014.
41. Rodriguez, F. and **Goupell, M. J.** “Discrimination of inconsistent interaural time differences across frequency in simulated bilateral cochlear-implant users,” 167th Meeting of the Acoustical Society of America, Providence, RI, May 2014.
42. **Goupell, M. J.** and Barrett, M. “Effects of level roving and overall level on correlation change discrimination in naïve and trained listeners,” 167th Meeting of the Acoustical Society of America, Providence, RI, May 2014.
43. Stilp, C. and **Goupell, M. J.** “Defining spectral and temporal resolutions of information bearing acoustic changes for understanding noise-vocoded sentences,” 167th Meeting of the Acoustical Society of America, Providence, RI, May 2014.
44. Catalano, A., Huang, Y. T., **Goupell, M. J.**, and Newman, R. “The use of prosody to infer discourse status in degraded speech,” American Speech-Language-Hearing Association Convention, Orlando, Florida, November 2014.
45. Stakhovskaya, O. A. and **Goupell, M. J.** “Modeling of across-frequency interaural level difference processing in bilateral cochlear-implant and normal-hearing listeners,” Association for Research in Otolaryngology 38th Midwinter Meeting, Baltimore, MD, February 2015.
46. Rodriguez, F. A. and **Goupell, M. J.** “Interaural differences in firing patterns between coding strategies for unsynchronized bilateral cochlear-implant Freedom and Nucleus5 processors,” Association for Research in Otolaryngology 38th Midwinter Meeting, Baltimore, MD, February 2015.
47. Jaekel, B., Newman, R., and **Goupell, M. J.** “Speaking rate effects on phonemic boundary perception in cochlear implant users,” 169th Meeting of the Acoustical Society of America, Pittsburgh, PA, May 2015.
48. Jaekel, B., Newman, R., and **Goupell, M. J.** “Speaking rate effects on phoneme perception in adult CI users with early- and late-onset deafness,” 17th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2015.
49. Anderson, S. R., and **Goupell, M. J.** “Aging affects binaural temporal processing in cochlear-implant and normal-hearing listeners,” 17th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2015.

50. **Goupell, M. J., Gaskins, C. R., Shader, M. J., Presacco, A., Anderson, S., Gordon-Salant, S.** “Gap detection in cochlear-implant users reveals age-related central temporal processing deficits,” 17th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2015.
51. **Misurelli, S., Kan, A., Jocewicz, R., Godar, S., Goupell, M. J., and Litovsky, R. Y.** “Spatial attention in children with bilateral cochlear implants and in normal hearing children,” 17th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2015.
52. **Thakkar, T., Kan, A., Goupell, M. J., and Litovsky, R. Y.** “Understanding binaural sensitivity through factors such as pitch matching between the ears and patients’ hearing history in bilateral cochlear implant users,” 17th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2015.
53. **Goupell, M. J., Evans, L., Gordon-Salant, S.** “Effect of aging on time-compressed sentence perception in cochlear-implant listeners,” 6th Aging and Speech Communication Conference, Bloomington, IN, October 2015.
54. **Gaskins, C. R., Shader, M. J., Anderson, S. B., Gordon-Salant, S., Goupell, M. J.** “Age-related temporal processing deficits in word segments in cochlear-implant users,” 6th Aging and Speech Communication Conference, Bloomington, IN, October 2015.
55. **Anderson, S. B., Presacco, A., Goupell, M. J.** “Aging effects on cortical speech processing in cochlear-implant users,” 6th Aging and Speech Communication Conference, Bloomington, IN, October 2015.
56. **Shader, M. J., Nguyen, N., Hertzano, R., Eisenman, D., Anderson, S. B., Gordon-Salant, S., Goupell, M. J.** “The effect of stimulation rate on speech recognition in older cochlear-implant users,” 6th Aging and Speech Communication Conference, Bloomington, IN, October 2015.
57. **Misurelli, S. M., Kan, A., Goupell, M. J., and Litovsky, R. Y.** “Auditory attention and source segregation in children with cochlear implants or normal hearing,” Association for Research in Otolaryngology 38th Midwinter Meeting, Baltimore, MD, February 2016.
58. **Shader, M. J., Gordon-Salant, S., Goupell, M. J.** “Older listeners process envelope modulations less effectively than younger listeners for understanding of cochlear-implant simulated speech,” America Auditory Society Annual Meeting, Scottsdale, AZ, March 2016.
59. **Presacco, A., Goupell, M. J., Gaskins, C., Shader, M. J., and Anderson, S.** “Neural correlates of age-related perceptual deficits in cochlear-implant users,” America Auditory Society Annual Meeting, Scottsdale, AZ, March 2016.
60. **Anderson, S., Gordon-Salant, S., Gaskins, C., and Goupell, M. J.** “Neural correlates of age-related changes in auditory temporal processing,” America Auditory Society Annual Meeting, Scottsdale, AZ, March 2016.
61. **Litovsky, R. Y., Ehlers, E., Kan, A., and Goupell, M. J.** “Binaural sensitivity in children with bilateral cochlear implants and in normal hearing children,” 172th Meeting of the Acoustical Society of America, Honolulu, Hawaii, November 2016.
62. **Stakhovskaya, O. A., Schuchman, G. I., Goupell, M. J., and Bernstein, J. G. W.** “Interaural-time-difference discrimination as a measure of place of stimulation for cochlear-implant listeners with single-sided deafness,” 172th Meeting of the Acoustical Society of America, Honolulu, Hawaii, November 2016.
63. **Cleary, M. I., Wilkinson, T., Wilson, L., and Goupell, M. J.** “Memory span in adult cochlear-implant users: Relationships with age under a self-paced manual response format,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
64. **Stakhovskaya, O. A., Bernstein, J. G. W., and Goupell, M. J.** “Ear dominance in bilateral cochlear-implant listeners,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
65. **Gaskins, C. R., Walter, E. P., Gordon-Salant, S., Anderson, S., and Goupell, M. J.** “Temporal processing as a function of pulse rate and age: Behavior and electrophysiology,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.

66. Stakhovskaya, O. A., Schuchman, G. I., **Goupell, M. J.**, and Bernstein, J. G. W. “Estimation of intracochlear place-of-stimulation with pitch matching and interaural-time-difference discrimination for cochlear-implant listeners with single-sided deafness,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
67. Shader, M. J., Gordon-Salant, M. J., and **Goupell, M. J.** “Effect of age on gap detection thresholds in cochlear-implant users,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
68. Baumgärtel, R. M., Witt, A., and **Goupell, M. J.** “Multi-source localization in binaural electric hearing,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
69. Eisenberg, D., Stakhovskaya, O. A., Bernstein, J. G.W., and **Goupell, M. J.** “The effect of the number of talkers on the binaural unmasking of clean and vocoded speech,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
70. **Goupell, M. J.**, Fong, S., and Stakhovskaya, O. A. “Envelope modulations reduce sensitivity to binaural differences in young normal-hearing listeners,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
71. Waked, A. and **Goupell, M. J.** “The impact of bilingualism and age on understanding vocoded speech,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
72. Jaekel, B. N., Newman, R., and **Goupell, M. J.** “Age effects on perceptual restoration of degraded interrupted sentences,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
73. Sheffield, S. W., **Goupell, M. J.**, Spencer, N., Stakhovskaya, O. A., and Bernstein, J. G. W. “Frequency dependence of the head-shadow benefit for single-sided deaf and bilateral cochlear implantees,” Association for Research in Otolaryngology 40th MidWinter Meeting, Baltimore, MD, February 2017.
74. Roque, L., **Goupell, M. J.**, Anderson, S. “Neural representation of temporal cues: Aging and spectral degradation effects,” America Auditory Society Annual Meeting, Scottsdale, AZ, March 2017.
75. Rosen, B. and **Goupell, M. J.** “Effect of frequency region on binaural interference for interaural level differences,” 173rd Meeting of the Acoustical Society of America, Boston, MA, June 2017.
76. Waked, A. and **Goupell, M. J.** “Do linguistic and cognitive processing differences impact vocoded speech understanding?,” 173rd Meeting of the Acoustical Society of America, Boston, MA, June 2017.
77. Stakhovskaya, O. A., Bernstein, J. G. W., and **Goupell, M. J.** “Non-sensory biases in a pitch-discrimination task for bilateral and single-sided deafness cochlear-implant listeners,” 173rd Meeting of the Acoustical Society of America, Boston, MA, June 2017.
78. **Goupell, M. J.**, Stakhovskaya, O. A., and Bernstein, J. G. W. “Factors underlying the binaural speech unmasking and interference for bilateral cochlear-implant users,” 18th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2017.
79. Stakhovskaya, O. A. and **Goupell, M. J.** “Multi-electrode lateralization using realistic interaural level differences in bilateral cochlear-implant listeners,” 18th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2017.
80. Cosentino, S., Stakhovskaya, O. A., Bernstein, J. G. W., and **Goupell, M. J.** “Optimizing pitch matching for bilateral cochlear implant users,” 18th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2017.
81. Stakhovskaya, O. A., Schuchman, G. I., **Goupell, M. J.**, and Bernstein, J. G. W. “The inconsistency of different measures of interaural place-of-stimulation for cochlear-implant users with single-sided deafness,” 18th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2017.

82. Sheffield, S., **Goupell, M. J.**, Spencer, N., Stakhovskaya, O. A., and Bernstein, J. G. W. “Binaural optimization of cochlear implants: Discarding frequency content without sacrificing head-shadow benefit,” 18th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2017.
83. Jaekel, B. N., Newman, R. S., and **Goupell, M. J.** “Older normal-hearing listeners perceptually restore degraded interrupted speech,” 7th Aging and Speech Communication Conference, Tampa, FL, November 2017.
84. Gaskins, C. R., Walter, E. P., Gordon-Salant, S., Anderson, S., and **Goupell, M. J.** “Behavioral and electrophysiological representation of temporal processing as a function of rate and age,” 7th Aging and Speech Communication Conference, Tampa, FL, November 2017.
85. Roque, L., Gaskins, C. R., **Goupell, M. J.**, and Anderson, S. “Aging effects on neural representation of temporal envelope and fine structure speech cues,” 7th Aging and Speech Communication Conference, Tampa, FL, November 2017.
86. Shader, M. J., Gordon-Salant, S., and **Goupell, M. J.** “The effects of age on temporal amplitude modulation processing ability in cochlear-implant users,” 7th Aging and Speech Communication Conference, Tampa, FL, November 2017.
87. Stakhovskaya, O. A., McLean, I., Gaskins, C. R., Shader, M. J., Presacco, A., and **Goupell, M. J.**, Anderson, S. B. “The effect of stimulation rate on electrophysiological responses in older cochlear-implant listeners,” 7th Aging and Speech Communication Conference, Tampa, FL, November 2017.
88. Stakhovskaya, O. A. and **Goupell, M. J.** “Across-frequency interaural-level-difference processing in bilateral cochlear-implant users,” Association for Research in Otolaryngology 41st MidWinter Meeting, San Diego, CA, February 2018.
89. Kronzek, E., Chisolm, J., Gordon-Salant, S., **Goupell, M. J.**, and Anderson, S. “Training effects on perception and neural representation of temporal speech cues,” America Auditory Society Annual Meeting, Scottsdale, AZ, March 2018.
90. Tinnemore, A.R., Mahoney, G., **Goupell, M. J.**, and Gordon-Salant, S. “Visual distraction: Age and cochlear implants,” America Auditory Society Annual Meeting, Scottsdale, AZ, March 2018.
91. Gaskins, C. R., Roque, L., **Goupell, M. J.**, and Anderson, S. “Aging and spectral degradation effects on processing of temporal cues,” America Auditory Society Annual Meeting, Scottsdale, AZ, March 2018.
92. Tinnemore, A. R., Evans, L., Gordon-Salant, S., and **Goupell, M. J.** “Processing speed and age predict recognition of spectro-temporally degraded speech,” 175th Meeting of the Acoustical Society of America, Minneapolis, MN, May 2018.
93. Stakhovskaya, O. A., Bernstein, J. G. W., Jensen, K. K., and **Goupell, M. J.** “Estimating the relative interaural place mismatch for bilateral cochlear-implant listeners,” 175th Meeting of the Acoustical Society of America, Minneapolis, MN, May 2018.
94. Waddington, E., Jaekel, B. N., Tinnemore, A., Gordon-Salant, S., and **Goupell, M. J.** “Audiovisual benefit in the perception of foreign-accented speech by cochlear-implant users” 175th Meeting of the Acoustical Society of America, Minneapolis, MN, May 2018.
95. Anderson, S, **Goupell, M. J.**, Schapira, A., Robinson, R., Hernandez, R., and Gordon-Salant, S. “Blocked training, but not randomized training, leads to improvement in temporal rate discrimination and increased energy in auditory steady state responses,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
96. Xie, Z., Stakhovskaya, O. A., **Goupell, M. J.**, and Anderson, S. “Aging effects on the auditory evoked cortical potentials in cochlear-implant users: The role of stimulus presentation rate,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
97. McLean, I., **Goupell, M. J.**, Anderson, S., and Stakhovskaya, O. A. “Effect of simulated interaural frequency mismatch on interaural time difference lateralization and the relationship to

- the amplitude of the binaural interaction component,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
98. Gaskins, C., Chen, C., Stein, A., Stakhovskaya, O. A., and **Goupell, M. J.** “Synchronized automatic gain controls improve sound localization in bilateral cochlear-implant users,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
 99. Stakhovskaya, O. A., Bernstein, J. G. W., Jensen, K. K., Kolberg, E., Noble, J., Hoa, M., Kim, H. J., and **Goupell, M. J.** “Estimation of interaural place-of-stimulation mismatch for bilateral cochlear-implant users with pitch matching, interaural-time-difference discrimination, and computed-tomography scans,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
 100. Anderson, S., Presacco, A., DeVries, L., Smith, E. W., Schapira, A., Robinson, R., Hernandez, R., **Goupell, M. J.**, and Gordon-Salant, S. “Experimental auditory training for older listeners using rate discrimination: Effects on perceptual and neural measures,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
 101. Tinnemore, A., Gordon-Salant, S., and **Goupell, M. J.** “The effect of visual distraction on the speech understanding of listeners with cochlear implants,” Association for Research in Otolaryngology 42nd MidWinter Meeting, Baltimore, MD, February 2019.
 102. Hoover, E. C., Anderson, S., **Goupell, M. J.**, and Gordon-Salant, S. “Graduate programs at the University of Maryland,” 177th Meeting of the Acoustical Society of America, Louisville, KY, May 2019.
 103. Yun, D., Jennings, T. R., Mason, C., Kidd, G., and **Goupell, M. J.** “Benefits from different types of acoustic beamforming in bilateral cochlear-implant listeners,” 177th Meeting of the Acoustical Society of America, Louisville, KY, May 2019.
 104. Bernstein, J. G. W., Jensen, K. K., Stakhovskaya, O. A., Noble, J. H., Hoa, M., Kim, H. J., Shih, R., Kolberg, E. R., and **Goupell, M. J.** “Estimating interaural mismatch to inform individualized frequency mapping,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
 105. Jensen, K. K., Stakhovskaya, O. A., Kolberg, E., Noble, J. H., **Goupell, M. J.**, and Bernstein, J. G. W. “Pitch matching: Electrode location or procedural artifact?,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
 106. Peng, E., **Goupell, M. J.**, van Ginkel, C., Zukerman, D., and Litovsky, R. Y. “The ability to understand interaural alternating speech is intact in bilateral cochlear-implant listeners,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
 107. **Goupell, M. J.**, Noble, J. H., Kolberg, E., Stakhovskaya, O. A., Jensen, K. K., Hoa, M., Kim, H. J., and Bernstein, J. G. W. “Interaural mismatches in insertion depth and scala location for bilateral cochlear-implant users,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
 108. Shader, M. J., Gordon-Salant, S., Kwon, B., and **Goupell, M. J.** “The effect of age on cochlear-implant users’ recognition of consonant contrasts that vary in discrete temporal cues at different stimulation rates and envelope modulation rates,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
 109. Tinnemore, A. R., Gordon-Salant, S., and **Goupell, M. J.** “Visual distraction diminishes speech understanding in cochlear-implant listeners,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
 110. Xie, Z., Stakhovskaya, O. A., **Goupell, M. J.**, and Anderson, S. “Age-related deficits in auditory cortical processing in cochlear-implant users,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.
 111. Jaekel, B. N., Newman, R. S., and **Goupell, M. J.** “Semantic cue and ear effects on perceptual restoration of speech in adult cochlear-implant users,” 19th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2019.

112. Anderson, S., DeVries, L. A., **Goupell, M. J.**, Smith, E., and Gordon-Salant, S. “Temporal rate discrimination training effects on perception and neural encoding in younger and older listeners,” 8th Aging and Speech Communication Conference, Clearwater, FL, November 2019.
113. DeVries, L. A., Schapira, A., Anderson, S., **Goupell, M. J.**, Smith, E., and Gordon-Salant S. “Assessing the time course of perceptual learning with pulse rate discrimination training in younger and older adults,” 8th Aging and Speech Communication Conference, Clearwater, FL, November 2019.
114. **Goupell, M. J.**, Shader, M. J., Anderson, S., and Gordon-Salant, S. “Peripheral versus central age-related temporal processing deficits: Insights from cochlear-implant users,” 8th Aging and Speech Communication Conference, Clearwater, FL, November 2019.
115. Waddington, E. L., Jaekel, B. N., Tinnemore, A., Gordon-Salant, S., and **Goupell, M. J.** “Recognition of accented speech by cochlear-implant listeners: Benefit of audiovisual cues,” 8th Aging and Speech Communication Conference, Clearwater, FL, November 2019.
116. Xie, Z., Anderson, S., Gordon-Salant, S., and **Goupell, M. J.** “Processing temporal cues for word identification in adult cochlear-implant users: Effects of aging and context,” 8th Aging and Speech Communication Conference, Clearwater, FL, November 2019.
117. Xie, Z., Anderson, S., Gordon-Salant, S., and **Goupell, M. J.** “Age-related temporal processing deficits for word segments in adult cochlear-implant users: Perceptual and electrophysiological evidence,” Association for Research in Otolaryngology 43rd MidWinter Meeting, San Jose, CA, January 2020.
118. Jaekel, B. N., Weinstein, S., Newman, R. S., and **Goupell, M. J.** “Interrupted speech perception in listeners with cochlear implants: Noise bursts fail to promote perceptual restoration,” Psychonomic Society's 61st Annual Meeting, Virtual Psychonomics, October 2020.
119. Jaekel, B. N. and **Goupell, M. J.** “Using cluster analysis and hearing histories to predict performance outcomes among bilateral cochlear-implant users,” 179th Meeting of the Acoustical Society of America, Acoustics Virtually Everywhere, November 2020.
120. Anderson, S. A., DeVries, L. A., Smith, E., **Goupell, M. J.**, and Sandra Gordon-Salant “Rate discrimination training may partially restore age-related temporal processing deficits,” Association for Research in Otolaryngology 44th MidWinter Meeting, Virtual, February 2021.
121. **Goupell, M. J.** and Bernstein, J. G. W. “The three dimensions of cochlear-implant interaural mismatch,” 20th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2021.
122. Gibbs, B. E., Kolberg, E., Cleary, M., **Goupell, M. J.** “The effect of interaural mismatch in the electrode-to-neural interface on interaural time difference sensitivity for bilateral cochlear implant recipients,” 20th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2021.
123. Jaekel, B. N., Weinstein, S., Newman, R. S., and **Goupell, M. J.** “Few cochlear-implant listeners employ speech repair strategies in noisy listening scenarios,” 20th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2021.
124. Zukerman Schopf, D., DeRoy Milvae, K., Mayo, P. G., Cleary, M., and **Goupell, M. J.** “Correcting for interaural place-of-stimulation mismatch in bilateral cochlear-implant users: Simulations on how to maximize binaural outcomes,” 20th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2021.
125. Cleary, M., DeRoy Milvae, K., Bernstein, J. G. W., and **Goupell, M. J.** “Effect of experimentally introduced interaural place-of-stimulation mismatch on speech understanding in bilateral cochlear-implant listeners,” 20th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2021.
126. Mayo, P. G., **Goupell, M. J.**, Gray, W. O., and Brown, A. D. “A comparison of binaural cues transmitted by clinically available cochlear-implant stimulation strategies,” 20th Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2021.
127. Cohen, J. I., Ezenwa, A., DeVries, L., Smith, E., **Goupell, M. J.**, Anderson, S. A., and Gordon-Salant, S. “Auditory learning on a pulse rate discrimination training paradigm in younger and

- older adults,” American Speech-Language-Hearing Association Convention, Washington, DC, November 2021.
128. **Goupell, M. J.**, Best, V., and Colburn, H. S. “Intracranial lateralization bias observed in the presence of symmetrical hearing thresholds,” 181st Meeting of the Acoustical Society of America, Seattle, WA, November 2021.
 129. Tollin, D. J., **Goupell, M. J.**, and Stecker, G. C. “The aperture problem for binaural hearing can explain ambiguous lateralization of complex binaural stimuli,” 181st Meeting of the Acoustical Society of America, Seattle, WA, November 2021.
 130. Calloway, R. C., Johns, M. J., Phillips, I., Karuzis, V. P., Dutta, K., Smith, E., Shamma, S. A., **Goupell, M. J.**, and Kuchinsky, S. E. “Discontinuous stochastic figure ground task predicts speech-in-noise recognition,” Association for Research in Otolaryngology 45th MidWinter Meeting, San Jose, CA, February 2022.
 131. Ezenwa, A. C., **Goupell, M. J.**, and Gordon-Salant, S. “Benefit of auditory training in time-compressed speech recognition in older versus younger cochlear implant listeners,” CI2022, Washington, DC, May 2022.
 132. Kelly, R., Cleary, M. I., Inscore, A., Dux, M., Nguyen, N., Blumenthal, J., Tinnemore, A., and **Goupell, M. J.** “Understanding the validity of the Montreal Cognitive Assessment as an assessment of cognitive ability in older cochlear-implant users,” CI2022, Washington, DC, May 2022.
 133. Weinstein, S., Nguyen N., Curry, L., Bernstein, J. G. W., Pillion, E., and **Goupell, M. J.** “Effective masking method(s) for aided speech testing with cochlear-implant users who have single sided deafness,” CI2022, Washington, DC, May 2022.
 134. Gibbs, B. E. and **Goupell, M. J.** “The effects of cochlear-implant processing and current spread on the weighting of spectrotemporal speech information in noise,” 182nd Meeting of the Acoustical Society of America, Denver, CO, May 2022.
 135. Mayo, P. G. and **Goupell, M. J.** “The changes to interaural acoustics imparted by placing circumaural headphones over bilateral cochlear-implant sound processors,” 182nd Meeting of the Acoustical Society of America, Denver, CO, May 2022.
 136. Bilokon, A. and **Goupell, M. J.** “The effects of aging and hearing loss on the across-frequency processing of interaural time differences,” 182nd Meeting of the Acoustical Society of America, Denver, CO, May 2022.
 137. Tollin, D. J., **Goupell, M. J.**, and Stecker, G. C. “Ambiguous lateralization of complex binaural stimuli emerge from neurons constrained to physiologically relevant ranges of ITD and frequency—The binaural aperture,” 182nd Meeting of the Acoustical Society of America, Denver, CO, May 2022.
 138. Huang, C. G., Soleimanpour, R., Agarwal, P., Costantino, M., **Goupell, M. J.**, and Anderson, S. “Increased forward masking effects reflect age-related auditory temporal processing deficits,” Association for Research in Otolaryngology 46th MidWinter Meeting, Orlando, FL, February 2023.
 139. Tinnemore, A. R., Abramowitz, J. C., Field, N., **Goupell, M. J.**, and DeRoy Milvae, K. “Listening-effort costs of high performance with cochlear implants,” Association for Research in Otolaryngology 46th MidWinter Meeting, Orlando, FL, February 2023.
 140. **Goupell, M. J.**, Catob, E., Phatak, S., and Bernstein, J. G. W. “Effects of impaired selective attention on binaural unmasking or interference of masked speech in bilateral and single-sided-deafness cochlear-implant users,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.
 141. Bilokon, A., Gibbs, B.E., II, Cleary, M., and **Goupell, M. J.** “Impact of aging and the electrode-to-neural interface on temporal processing ability in cochlear-implant users,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.
 142. Tinnemore, A. R., Doyle, E. M., Atluri, P., Huang, C. G., Cleary, M. I., **Goupell, M. J.** “Age-related temporal processing deficits in cochlear-implant listeners interact with presentation level

- to alter perception of speech contrasts,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.
143. Kelly, R., Cleary, M., Inscore, A., Dux, M., Kulkarni, A., Nguyen, N., Blumenthal, J., and **Goupell, M. J.** “Comparing cognitive performance between individuals with cochlear implants and acoustic hearing on a neuropsychological battery with accommodations for hearing loss,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.
 144. Gibbs, B. E., II and **Goupell, M. J.** “The effects of monaural acoustic glimpse criteria on binaural unmasking and contralateral interference in cochlear implants,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.
 145. Huang, C. G., Anderson, S., **Goupell, M. J.** “The role of listening effort in mitigating rollover effects of speech-in-noise perception in cochlear implant users,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.
 146. Bernstein, J. G. W., Eitel, M. M., Phatak, S. A., Jensen, K. K., Pillion, E. M., Dirks, C. E., and **Goupell, M. J.** “Contralateral unmasking for single-sided-deafness cochlear-implant users with shifted frequency assignments to reduce interaural place mismatch,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.
 147. AlQasem, O. J., Addington, D., Thakkar, T., Kan, A., Litovsky, R. Y., and **Goupell, M. J.** “Comparisons of interaural-time-difference tuning curves using monopolar and partial tripolar configurations in adult bilateral cochlear-implant users,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.
 148. Mayo, P. G., Zukerman Schopf, D., Cleary, M., DeRoy Milvae, K., and **Goupell, M. J.** “Models for correction interaural mismatch in bilateral and single-sided-deafness cochlear-implant listeners,” Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 2023.

II.E.11. Symposia

1. **Goupell, M. J.** “Anatomy and physiology of the central auditory pathways,” Military Central Auditory Processing Symposium, Walter Reed National Military Medical Center, Bethesda, MD, October 2016.
2. **Goupell, M. J.** “Overview of sound localization and binaural hearing” and “Hearing with two ears: Coordinating cochlear implants for binaural hearing,” A. G. Bell Research Symposium on “The Binaural Brain: How it Perceives Speech, Language, and Challenges to Auditory Processing,” Scottsdale, AZ, June 2018.

II.E.12. Workshops

1. Majdak, P., Laback, B., and **Goupell, M. J.** “Spectral cues for sound localization with cochlear implants,” Workshop on Novel Developments in Cochlear Implant Technology, Munich, Germany, September 2009.
2. **Goupell, M. J.** “Translation of basic science to clinical applications and improvements in cochlear implants,” Center for Comparative Evolutionary Biology of Hearing 2nd Annual Auditory and Vestibular Translational Research Day, Baltimore, MD, November 2016.

II.E.13. Colloquia

1. **Goupell, M. J.** “Psychoacoustics and incoherence,” invited speaker at Department of Physics, Hope College, Holland, MI, October 2004.
2. **Goupell, M. J.** “The science of sound, hearing, and music,” invited speaker at Department of Physics, Hope College, Holland, MI, September 2005.
3. **Goupell, M. J.** “Improving cochlear implant ITD perception,” invited speaker at Department of Biomedical Engineering, Boston University, Boston, MA, June 2007.
4. **Goupell, M. J.** “Median plane localization in cochlear-implant users,” invited speaker at Waisman Center, University of Wisconsin – Madison, Madison, WI, October 2008.

5. **Goupell, M. J.** “Sound localization and speech understanding with cochlear implants,” invited speaker at Department of Biomedical Engineering, University of Wisconsin – Madison, Madison, WI, October 2009.
6. **Goupell, M. J.** “Sound localization and speech understanding with cochlear implants,” invited speaker at Department of Physics, Hope College, Holland, MI, October 2009.
7. **Goupell, M. J.** “Bilateral CIs...what are your problems? Let me count them,” invited speaker at Department of Otolaryngology, New York University, New York, NY, October 2011.
8. **Goupell, M. J.** “Can we provide binaural hearing to bilateral cochlear-implant users?” invited speaker at Walter Reed National Military Medical Center, Bethesda, MD, June 2012.
9. **Goupell, M. J.** “Issues concerning interaural frequency mismatch in bilateral cochlear implantees,” invited speaker at Austrian Academy of Sciences, Vienna, Austria, July 2012.
10. **Goupell, M. J.** “Improving binaural performance in bilateral cochlear implantees,” invited speaker at Department of Otorhinolaryngology, University of Maryland School of Medicine, Baltimore, MD, September 2012.
11. **Goupell, M. J.** “Cochlear-implant processing and using the channel vocoder as a cochlear-implant simulation,” invited speaker for University of Maryland-College Park IGERT Language Science Program Winter Storm, College Park, MD, January 2013.
12. **Goupell, M. J.** “The detriments of interaural frequency mismatch on sound localization in bilateral cochlear implantees,” invited speaker at Eaton-Peabody Laboratory, Massachusetts Eye and Ear Infirmary, Boston, MA, April 2013.
13. **Goupell, M. J.** and Gordon, K. “Rethinking cochlear implant mapping for bilateral users,” American Academy of Audiology Web Seminar, April 2013.
14. **Goupell, M. J.** “Different ears, different people: Expanding knowledge in bilateral, prelingual, and older cochlear implantees,” invited speaker at Austrian Academy of Sciences, Vienna, Austria, June 2014.
15. **Goupell, M. J.** “Considerations when mapping bilateral cochlear implants,” invited speaker at Department of Otorhinolaryngology, Georgetown University Hospital, Washington, DC, May 2015.
16. **Goupell, M. J.** “Binaural advantages for understanding in noise in bilateral cochlear-implant users,” invited speaker at Department of Speech, Language, and Hearing Sciences, Purdue University, West Lafayette, IN, September 2015.
17. **Goupell, M. J.** “Understanding speech in complex environments with bilateral cochlear implants,” invited speaker at Department of Speech and Hearing Sciences, University of Washington, Seattle, WA, November 2015.
18. **Goupell, M. J.** “When does having two ears interfere with speech understanding in conditions with spatially separated concurrent talkers?” invited speaker at Walter Reed National Military Medical Center, Bethesda, MD, June 2016.
19. **Goupell, M. J.** “The physics of hearing: From basic physical principles to bionic auditory prostheses,” invited speaker at Department of Physics, University of Maryland, College Park, MD, September 2016.
20. **Goupell, M. J.** “Spatial hearing with bilateral cochlear implants and their interaural-level-difference dominance in sound localization,” invited speaker at Department of Biomedical Engineering, Boston University, Boston, MA, October 2016.
21. Bernstein, J. G. W., Stakhovskaya, O. A., **Goupell, M. J.** “Issues concerning maximization of benefits from bilateral cochlear implants and implants for people with single-sided deafness,” invited speaker at Cochlear Americas, Centennial, CO, March 2017.
22. Bernstein, J. G. W., Stakhovskaya, O. A., **Goupell, M. J.** “Binaural hearing for people with bilateral cochlear implants and single-sided deafness,” invited speaker at University of Colorado School of Medicine, Denver, CO, March 2017.

23. **Goupell, M. J.** and Bernstein, J. G. W. “Maximizing benefits from hearing with two ears in users of neural auditory prostheses,” invited speaker at Food and Drug Administration, Silver Spring, MD, April 2017.
24. **Goupell, M. J.** “Creating the perception of sound with electrical stimulation from a bionic auditory prosthesis,” invited speaker at Department of Physics, Kenyon College, Gambier, OH, September 2017.
25. **Goupell, M. J.** and Stakhovskaya, O. A. “Ear dominance and neural extinction in bilateral cochlear-implant listeners,” invited speaker at the Listening Center, Johns Hopkins University, Baltimore, MD, December 2017.
26. **Goupell, M. J.** “Aging and hearing through cochlear implants: What does it tell us about processing degraded sentences?,” invited speaker for University of Maryland-College Park Language Science Center Winter Storm, College Park, MD, January 2018.
27. **Goupell, M. J.** “Processing of interaural level differences through bilateral cochlear implants,” invited speaker at Austrian Academy of Sciences, Vienna, Austria, June 2018.
28. **Goupell, M. J.** “Spatial hearing with interaural level differences in cochlear-implant users,” invited speaker at Department of Biomedical Engineering, Boston University, Boston, MA, September 2018.
29. **Goupell, M. J.** “Speech processing and cognition in aging cochlear-implant users,” invited speaker at Department of Psychology, Brandeis University, Boston, MA, October 2018.
30. Bernstein, J. G. W., Stakhovskaya, O. A., Jensen, K. K., and **Goupell, M. J.** “Measuring frequency mismatch for single-sided deafness and bilateral cochlear-implant listeners,” invited speaker at Department of Hearing and Speech Sciences, Vanderbilt University, Nashville, TN, December 2018.
31. **Goupell, M. J.** “Speech understanding, temporal processing, and cognition in aging cochlear-implant users,” invited speaker at Advanced Bionics Headquarters, Valencia, CA, January 2019.
32. **Goupell, M. J.** “Reducing interaural place-of-stimulation mismatch for improved binaural hearing in cochlear-implant users,” invited speaker at Department of Otolaryngology, New York University, New York, NY, March 2019.
33. **Goupell, M. J.** “Towards improving binaural hearing in cochlear implantees by reducing interaural place-of-stimulation mismatch,” invited speaker at Eaton-Peabody Laboratory, Massachusetts Eye and Ear Infirmary, Boston, MA, April 2019.
34. **Goupell, M. J.** “Across-frequency interaural-time-difference processing,” invited speaker at Department of Biomedical Engineering, Boston University, Boston, MA, June 2019.
35. **Goupell, M. J.** “Contributions of peripheral, central, and cognitive components in age-related auditory processing deficits in cochlear-implant users,” invited speaker at The Dana Center, Johns Hopkins University, Baltimore, MD, January 2020.
36. **Goupell, M. J.** “Binaural optimization in cochlear implantees by reducing interaural mismatch,” invited speaker at Greater Baltimore Medical Center, Baltimore, MD, September 2020.
37. **Goupell, M. J.** “Correcting interaural mismatch to improve spatial hearing in cochlear-implant users,” invited speaker at Kresge Hearing Research Institute, University of Michigan, Ann Arbor, MI, April 2021.
38. **Goupell, M. J.** “Perceptual and objective measures of age-related auditory temporal processing deficits in cochlear-implant users,” invited speaker at Cochlear Ltd., Long Tree, CO, May 2022.
39. **Goupell, M. J.** “Sound perception and spatial hearing with neural electrical stimulation from bionic auditory prostheses,” invited speaker at Department of Physics, Hope College, Holland, MI, July 2022. (<https://youtu.be/lps4steSgjj>, last viewed 8/4/22)
40. **Goupell, M. J.** “How asymmetry affects spatial hearing and auditory attention,” invited speaker for Summer Undergraduate Research Training Program at California State University, Los Angeles, CA, August 2022.

41. **Goupell, M. J.** “Optimizing benefits from cochlear implants using behavioral and objective measurements,” invited speaker at Waisman Center, University of Wisconsin, Madison, WI, March 2023.
42. **Goupell, M. J.** “Rethinking interaural time difference encoding: Dominant channel theory,” invited speaker at Austrian Academy of Sciences, Vienna, Austria, June 2023.

II.F. Professional Publications

II.F.1. Reports and Non-Refereed Monographs

1. **Goupell, M. J.** (2015). “Pushing the envelope of auditory research with cochlear implants,” *Acoustics Today* 11, 26-33.
2. Nguyen, N., Curry, L., and **Goupell, M. J.** (2023). “Bionic hearing: When is it time to get a cochlear implant?,” *Acoustics Today*. 19, 37-45.

II.J. Sponsored Research

II.J.1. Grants

Current External:

R01 DC5205032

Title: Peripheral and central contributions to auditory temporal processing deficits and speech understanding in older cochlear implantees

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$2,651,491

Dates: 04/01/2022 – 03/31/2027

Role: PI

R01 DC015798

Title: Optimizing bilateral and single-sided deafness cochlear implants for functioning in complex auditory environments

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$1,971,162

Dates: 12/01/2016 – 11/30/2023 (no cost extension)

R01 DC020506

Title: Optimizing bilateral and single-sided deafness cochlear implants for functioning in complex auditory environments

Total Award: \$2,768,375

Dates: 09/01/2023 – 05/31/2028

PIs: Bernstein, Goupell

P01 AG055365

Title: Neuroplasticity in auditory aging

Source: National Institute on Aging

Total Award: \$8,222,746

Dates: 09/15/2017 – 05/31/2024 (no cost extension)

Role: Co-I

T32 DC000046

Title: Center of comparative evolutionary biology of hearing training grant

Source: National Institute on Deafness and Other Communication Disorders

Dates: 07/01/2022 – 06/30/2026

Total Award: \$1,591,864

PIs: Carr, Goupell

R25 DC021130

Title: UMD-REACH (Research Equity and Access in Communication and Hearing)

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$1,313,722

Dates: 08/15/2023 – 8/14/2028

PIs: Newman, Goupell

Current Internal:

Title: A patient data-driven approach to improve counseling and hearing health

Source: University of Maryland MPower Initiative

Total Award: \$250,000

Dates: 03/31/2022 – 03/30/2024

PIs: Kaufman, Goupell

MIPS 6731

Title: Personalize headphone audio: Beyond HRTFs

Source: Maryland Industrial Partnerships

Total Award: \$89,924

Dates: 1/1/2021 – 12/31/2023

Role: PI (with Industrial Partner Visisonics, CEVA, and Ramani Duraiswami)

Completed External:

K99/R00 DC010206

Title: Speech understanding and signal detection in noise in bilateral cochlear implants

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$927,360

Dates: 08/11/2009 – 07/31/2014

Role: PI

Mentor: Litovsky (2009 – 2011)

F31 DC013238

Title: Binaural unmasking in children with cochlear implants

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$109,277

Dates: 07/01/2013 – 12/31/2015

Role: Todd (PI), Litovsky (co-sponsor), and Goupell (co-sponsor)

F32 DC016478

Title: Temporal processing ability in older cochlear-implant users

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$58,137

Dates: 8/1/2017 – 7/30/2018

Role: Shader (PI), Gordon-Salant (co-sponsor), and Goupell (co-sponsor)

F31 DC017362

Title: Effects of interrupting noise and speech repair mechanisms in child and adult cochlear-implant users

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$64,859

Dates: 9/1/2018 – 8/30/2020

Role: Jaekel (PI), Newman (co-sponsor), and Goupell (co-sponsor)

R01 AG051503

Title: Temporal processing and speech understanding in older cochlear implantees

Source: National Institute on Aging

Total Award: \$1,533,597

Dates: 09/30/2016 – 04/30/2022

Role: PI

R01 AG051603-05S1

Title: Auditory and cognitive processing in older cochlear-implant users with possible cognitive impairment

Total Award: \$325,735

Dates: 08/01/2020 – 04/30/2022

Role: PI

R01 DC014948

Title: Binaural unmasking of tones and speech in bilateral cochlear implantees

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$1,866,735

Dates: 06/01/2016 – 05/31/2023

Role: PI

K01 DC018064

Title: Listening effort and binaural-hearing benefits in bilateral cochlear-implant users

Source: National Institute on Deafness and Other Communication Disorders

Total Award: \$353,862

Dates: 7/1/2019 – 6/30/2023 (no cost extension)

Role: Milvae (PI), Kuchinsky (co-sponsor), and Goupell (co-sponsor)

Completed Internal:

Title: Machine learning analyses of audiological data to predict age-related declines in hearing and cognition

Source: Brain and Behavior Initiative

Total Award: \$130,000

Dates: 01/01/2022 – 12/31/2022

PIs: Cummings, Goupell

Title: Cochlear Implant Center of Excellence

Source: University of Maryland MPower Initiative

Total Award: \$384,000

Dates: 07/01/2017 – 06/30/2022

PIs: Goupell, Newman, Nguyen, Eisenman, Hertzano

Title: Cognition and fatigue in older cochlear-implant users

Source: University of Maryland Center on Aging Catalyst Funds

Total Award: \$3,000

Dates: 01/16/2020 – 12/31/2020

PI: Goupell

Title: Redesign of Hearing and Speech Sciences (HESP) 634: Anatomy and Physiology of the Auditory and Vestibular Systems
Source: University of Maryland Teaching Innovation Grant
Total Award: \$1,950
Dates: 06/30/2020 – 8/30/2020
PI: Goupell

Title: Understanding the effect of age and duration of deafness on speech recognition in cochlear implant users
Source: Brain and Behavior Initiative Seed Grant
Total Award: \$75,000
Dates: 03/01/2016 – 02/28/2017
Role: PI

Title: Neuroplasticity in auditory aging
Source: University of Maryland Division of Research Tier 2 Seed Grant
Total Award: \$75,000
Dates: 07/01/2015 – 06/30/2016
Role: Co-Investigator

Title: Binaural unmasking of tones and speech in bilateral cochlear implantees
Source: University of Maryland – College Park, College of Behavioral and Social Sciences
Total Award: \$10,000
Dates: 07/01/2015 – 06/30/2016
Role: PI

Title: Age-induced decline in audition and cognition in people with and without cochlear implants
Source: University of Maryland – College Park, College of Behavioral and Social Sciences
Total Award: \$12,000
Dates: 07/01/2014 – 06/30/2015
Role: PI

Title: The development of language comprehension in simulated cochlear implant speech
Source: University of Maryland Division of Research Tier 1 Seed Grant
Total Award: \$49,778
Dates: 06/01/2013 – 05/31/2014
Roles: Newman (PI), Huang (co-investigator), and Goupell (co-investigator)

Title: Neurologically-inspired assistive binaural-hearing device for cochlear-implant and hearing-aid users
Source: University of Maryland Graduate School Research and Scholarship Award
Total Award: \$9,000
Dates: 06/01/2012 – 08/31/2012
Role: PI

Consulting:

Title: Cochlear implants for active-duty service members
Source: Defense Medical Research and Development Program

Dates: 6/1/2014 – 5/31/2017
Roles: Bernstein (PI), Goupell (Consultant)

R01 DC013286
Title: Top-down control of selective amplification
Source: National Institute on Deafness and Other Communication Disorders
Total Award: \$3,293,325
Dates: 07/01/2019 – 06/30/2024
Roles: Kidd (PI), Goupell (Consultant)

III. Teaching, Mentoring, and Advising

III.A. Courses Taught

Note: Number of students in parentheses.

1. Undergraduate

Hearing and Speech Sciences 407: Bases of Hearing Science
Spring 2023 (66), Spring 2022 (66), Spring 2021 (60), Spring 2020 (61), Spring 2018 (60)

Hearing and Speech Sciences 468H: Professional Development in Research and Academia;
Honors Seminar: Professional Development
Fall 2023 (6), Spring 2023 (8), Fall 2022 (7), Spring 2022 (6), Fall 2021 (5), Spring 2021 (5), Fall 2020 (5)

Hearing and Speech Sciences 499: Topics in HESP
Fall 2022 (4), Spring 2021 (1), Spring 2020 (2), Fall 2019 (2), Spring/Fall 2018 (5/3), Spring/Fall 2017 (9/5), Spring/Fall 2016 (5/10)

2. Graduate

Hearing and Speech Sciences 600: Instrumentation
Fall 2021 (4)

Hearing and Speech Sciences 634: Anatomy and Physiology of the Auditory and Vestibular Systems
Summer 2023 (7), Summer 2022 (3), Summer 2021 (9), Summer 2020 (13), Summer 2019 (8), Summer 2018 (7)

Hearing and Speech Sciences 639E: Quantitative Methods for Hearing, Speech, and Language Sciences
Spring 2022 (4)

Hearing and Speech Sciences 712: Cochlear Implants and Other Implantable Technologies
Fall 2023 (3), Fall 2022 (9)

Hearing and Speech Sciences 722: Psychoacoustics
Fall 2023 (8), Fall 2022 (4), Fall 2021 (8), Fall 2020 (12), Fall 2019 (8)

III.C. Advising: Research or Clinical

III.C.1. Undergraduate

1. Kia Griffith (Summer 2012, Summer Research Initiative Student)
2. Daniel Eisenberg (Summer 2012 – Spring 2013, Undergraduate Researcher of the Year 2013)
3. Sara Dougherty (Fall 2012 – Spring 2014, HESP Honors, Maryland Summer Scholars)
4. Sean Anderson (Summer 2014)
5. Casey Gaskins (Summer 2014 – Spring 2016, HESP Honors, Summer Research Initiative Student, Maryland Summer Scholars, Undergraduate Researcher of the Year 2016)
6. Beth Rosen (Fall 2015 – Spring 2017, HESP Honors)
7. Lauren Wilson (Summer 2016 – Spring 2018, HESP Honors)
8. Emily Waddington (Fall 2016 – Spring 2018, HESP High Honors, Maryland Summer Scholars)
9. Iona McLean (Summer 2018, Summer 2019)
10. Marina Cox (Spring 2019 – Fall 2020, HESP Honors, BSOS Summer Scholars)
11. Danielle Zukerman (Spring 2018 – Spring 2021, HESP High Honors, Maryland Summer Scholars, BSOS Summer Scholars, Karen Young Award, Undergraduate Researcher of the Year 2021)
12. Allison Choi (Summer 2022 – present, BSOS Summer Scholars, Karen Young Award)
13. Alex Janco (Summer 2022)
14. Parth Agwaral (Summer 2022)
15. Rebecca Farrar (Summer 2023)
16. Marie-Elise Latorre (Summer 2023)

III.C.2. Master's

1. Rachel Stein Rosner, committee member, HESP, Fall 2015 – Spring 2016.
2. Isabelle Martin, committee member, HESP, Fall 2016 – Spring 2017.
3. Jeremy Fleming, capstone advisor, Fall 2018 – Fall 2019.
4. Elizabeth Kolberg, co-advisor, NACS, 2019-2021.

III.C.3. Doctoral

Doctoral Dissertation Primary Advisor (Ph.D.)

1. Maureen Shader (co-mentor)
Graduation Date: Summer 2019
Dissertation Title: Auditory Temporal Processing Ability in Cochlear-Implant Users: The Effects of Age and Peripheral Neural Survival
2. Brittany Jaekel (co-mentor)
Graduation Date: August 2020
Dissertation Title: Effects of Interrupting Noise and Speech Repair Mechanisms in Adult Cochlear-Implant Users
3. Arifi Waked
Graduation Date: September 2020
Dissertation Title: The Role of Age and Bilingualism on Perception of Vocoded Speech
4. Anna Tinnemore (co-mentor)
Start Date: Summer 2017
Expected Date of Graduation: 2024
5. Paul Mayo
Start Date: Fall 2018
Expected Date of Graduation: 2025
6. Obada AlQasem
Start Date: Fall 2022
Expected Date of Graduation: 2026

Doctoral Dissertation Students (Ph.D.)

1. Alessandro Presacco, NACS, committee member, Fall 2013 – Spring 2016.
2. Jessica Wess, NACS, committee member, Fall 2014 – Summer 2017.
3. Erica Ehlers Bennett, University of Wisconsin – Madison, Communicative Disorders, committee member, Spring 2015 – Spring 2016.
4. Francisco Cervantes Constantino, NACS, committee member and Dean’s representative, Spring 2015 – Spring 2017.
5. Kenneth Chou, Boston University Biomedical Engineering, committee member, Summer 2016 – Spring 2020.
6. Jaclyn Schurman, HESP, committee member, Summer 2018 – Fall 2020.
7. Ira Kraemer, NACS, committee member and Dean’s representative, Fall 2017 – Fall 2021.
8. Willy Sun, NACS, committee member and Dean’s representative, Fall 2020 – Summer 2021.
9. Allison Johnson, HESP, committee member, Spring 2018 – Fall 2021.
10. Emma Dixon, College of Information Studies, committee member and Dean’s representative, Spring 2021 – Spring 2022.
11. Katherine Menon, HESP, PPC member and Department Mentoring Liaison, Fall 2019 – present.
12. Rose Ying, NACS, Qualifying Exam committee member, Spring 2022 – present.
13. Kelsey Dutta, Electrical Engineering, committee member and Dean’s representative, Fall 2022.
14. Michelle Erskine, HESP, committee member, Fall 2022.

Doctoral Capstone Research Project Advisor (Au.D.)

1. Olga Stakhovskaya (2014)
2. Lauren Evans (2015)
3. Robert Ellis (co-mentor, 2015)
4. Daniel Eisenberg (2017)
5. Jennifer Chisholm (co-mentor, 2018)
6. Eve Kronzek (co-mentor, 2018)
7. Allison Heuber (co-mentor, Gallaudet University, 2019)
8. Casey Gaskins (2019)
9. Madeline Yoder (2019)
10. Kelly Miller (2020)
11. Taylor Bakal (2020)
12. Danielle King (2020)
13. Mary Schwartz (co-mentor, 2021)
14. Paul Mayo (2022)
15. Jordan Abramowitz (2022)
16. Sarah Weinstein (co-mentor, 2022)
17. Amara Enzenwa (co-mentor, 2022)
18. Rebecca Higgins (2023)
19. Angelina Bilokon (2023)
20. Erin Catob (2023)
21. Alexandra Papanicolaou (2023)
22. Brisia Gonzalez (co-mentor, 2023)
23. Danielle Schopf Zukerman
24. Alessandra Vidal
25. Erin Doyle

III.C.4. Post-doctoral and Research Scientists

1. Francisco Rodriguez, Spring 2013 – Spring 2015.
2. Miranda Cleary, Fall 2014 – Summer 2016; Fall 2019 – present.
3. Stefano Cosentino, Spring 2017 – Fall 2017.
4. Kristina DeRoy Milvae (co-mentor), Summer 2017 – Summer 2022.

5. Zilong Xie (co-mentor), Summer 2018 – Summer 2020.
6. Bobby Gibbs, Winter 2019 – Summer 2023.
7. Chengjie Huang (co-mentor), Summer 2022 – present.

III.C.5. Other Research Advisees

1. Tanvi Thakkar, post-bachelor researcher, mentor, Spring 2012 – Summer 2013.
2. Regina Baumgaertel, visiting scholar, mentor, Summer 2014.
3. David Yun, post-bachelor researcher, mentor, Fall 2017 – Summer 2018.
4. Elizabeth Kolberg, research audiologist, mentor, Summer 2018 – Summer 2019.
5. Nikolos Migineishvili, high school student, mentor, Summer 2023.

III.D. Mentorship

III.D.1. Junior Faculty

1. Danielle Powell (Fall 2023 – present)

III.E. Advising: Other than Research Direction

III.E.3. Doctoral

Academic Advising for Doctor of Audiology (Au.D.) Students
 2022-2023 (10)
 2021-2022 (10)
 2020-2021 (8)
 2019-2020 (10)
 2017-2018 (10)

IV. Service and Outreach

IV.A. Editorships, Editorial Boards, and Reviewing Activities

IV.A.1. Editorships

- Associate Editor for *Journal of the Acoustical Society of America* (2019 – 2025)
- Guest Associate Editor for *Ear and Hearing* (2021 – 2023)

IV.A.3. Reviewing Activities for Journals and Presses

1. *Journal of the Acoustical Society of America*
2. *Journal of the Association for Research in Otolaryngology*
3. *Ear and Hearing*
4. *Trends in Hearing*
5. *Journal of Speech, Language, and Hearing Research*
6. *Journal of Neurophysiology*
7. *Journal of Neuroscience*
8. *Hearing Research*
9. *Brain and Behavior*
10. *Attention, Perception, and Psychophysics*
11. *Nature Communications*
12. *Acta Acustica United with Acustica*
13. *International Journal of Audiology*
14. *Transactions on Biomedical Engineering*
15. *Transactions on Neural Systems & Rehabilitation Engineering*
16. *PLOS ONE*
17. *Journal of Visualized Experiments*
18. *Otology and Neurotology Open*
19. *Expert Review of Medical Devices*

IV.A.4. Reviewing Activities for Agencies and Foundations

- National Institute of Health Small Business Innovation Research Study Section (2012 – 2021)
- National Institute of Health Hearing and Balance Fellowships Review (October 2020, October 2023)
- National Institute of Health ZDC1 SRB-X (63) 1 – Clinical Research Center Review (November 2022)
- National Institute of Health NIDCD ZDC1 SRB-Y57 – Translational Application Review (May 2023)
- Hearing Health Foundation (2017 – 2023)
- Action on Hearing Loss Charity (U.K.; 2018, 2020)
- Fondation Pour l'Audition Grant Review (France; 2021, 2022)
- Grant review for Health and Medical Research Fund under The Government of the Hong Kong Special Administrative Region (Hong Kong; June 2021)

IV.B. Committees, Professional & Campus Service

IV.B.1. Campus Service – Department

Current

- HESP Ph.D. Program Director (2020 – present)
- HESP Undergraduate Honors Program Co-Director (2014 – present)
- HESP Seminar Series Co-coordinator (2013 – 2018; 2022 – present)
- UMD-UMB Maryland Cochlear-Implant Center of Excellence Co-Director (2017 – present)
- HESP Cochlear-Implant Specialty Track Committee (2017 – present)
- HESP CAUD Program Planning Subcommittee (2011 – present)

Past

- UMD HESP – UM Medical Center collaboration for clinical instruction of Au.D. students in cochlear-implant health services (2012 – 2017)
- HESP CAUD Comprehensive Examination Coordinator (2011 – 2016)
- HESP CAUD Faculty Search Committee (2011 – 2012)
- HESP Merit Committee (2013 – 2014)
- HESP Teaching Committee (2013 – 2017)
- HESP AEP Committee, Nicole Nguyen (2016)
- HESP CAUD Faculty Search Committee (2017 – 2018)
- HESP APT Committee, Samira Anderson (2017 – 2018)
- HESP IT/Communications Committee (2013 – 2018)
- HESP PCC Committee (2017 – 2018)
- HESP Outreach/Events Committee (2017 – 2018)
- HESP Ph.D. Mentorship Committee (2021)
- HESP Workload Committee (2022)
- HESP APT Committee, Third-Year Review, Eric Hoover (2022)
- HESP Undergraduate Learning Outcomes Committee (2022)
- HESP Space Committee (2016 – 2017); Chair (2019 – 2023)
- HESP CAUD Faculty Search Committee Chair (2022 – 2023)
- HESP APT Committee Chair, Samira Anderson (2022 – 2023)

IV.B.2. Campus Service – College

- BSOS Assistant/Associate Dean for Research Search Committee (2016)
- NACS Grants Development Specialist Search Committee Chair (2018)
- NACS Admissions Committee (2021 – 2023)

- BSOS APT Committee (2021 – 2023)

IV.B.3. Campus Service – University

- Language Science Center Outreach Committee (2017 – 2018)
- UMD Undergraduate Research of the Year Reviewer (2017)
- UMD Maryland Summer Scholars Reviewer (2020)
- Wylie/Lee Thornton Dissertation Fellowship Selection Committee (2021 – 2023)

IV.B.7. Leadership Roles in Meetings and Conferences

- Organizer of Mid-Atlantic Seminar on Hearing Conference, College Park, MD (2013 – 2022)
- Co-organizer of Midwest Cochlear-Implant Research Symposium, Madison, WI (2010 – 2013)
Awarded ARO Small Grant Conference Award (\$1000) for 2012
- American Academy of Audiology Auditory Research Conference, Planning Committee (2013)
- Association for Research in Otolaryngology Travel Award Committee (2014 – 2017)
- Acoustical Society of America
 - Psychological and Physiological (P&P) Technical Committee (2015 –2018; 2022 – present)
 - P&P Medals Awards and Membership Subcommittee (2015 – 2018)
 - Representative of the Membership Committee (2023 – present)
- Conference for Implantable Auditory Prostheses
 - Steering Committee (2017, 2019, 2021)
 - Mentoring Session (Co-Chair) (2023)

IV.F. Community & Other Service

1. Presentation to Cochlear Implant Support Group, Haddonfield NJ/Philadelphia Area, October 2012.
2. Presentation to Hearing Loss Association of America, Frederick MD Chapter, March 2013.
3. Presentation to Hearing Loss Association of America, Frederick MD Chapter, April 2016.
4. Takoma Park Elementary School STEM Night, February 2018.
5. Piney Branch Elementary School STEM Night Co-Chair, February 2020, April 2021.

V. Awards, Honors and Recognition

V.1. Research Fellowships, Prizes, and Awards

R. Bruce Lindsay Award – Acoustical Society of America, May 2014.

“This award is presented to a member of the Acoustical Society of America who is under 35 years of age and who, during a period of two or more years immediately preceding the award, has been active in the affairs of the Society and has contributed substantially, through published papers, to the advancement of theoretical or applied acoustics, or both.”

Fellow – Acoustical Society of America, December 2021.