

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 July 10, 2021

I. Personal Information

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

UID: 106322358

Goupell, Matthew Joseph

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(301) 405-8552
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I.B. Academic Appointments at UMD

Hearing and Speech Sciences

Professor (August 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. Otol.* 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. Otol.* 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 correlation-change discrimination in bilateral cochlear-implant users: Effects of interaural frequency mismatch, centering, and age of 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, 1-15.
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, 1-15.
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, 1-19.
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. Otol.* 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, 1-19.
63. Sheffield, S., Goupell, M. J., Spencer, N., Stakhovskaya, O. A., and Bernstein, J. G. W. (2020). "Frequency dependence of the head-shadow benefit for single-sided deaf and bilateral cochlear implantees," *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. Otol.* 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, 1-14.
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, 1-2.
72. Misurelli, S., Goupell, M. J., Burg, E., Joczewicz, R., Kan, A., and Litovsky, R. Y. (2020) "Auditory attention and spatial unmasking in children with cochlear implants," *Trends Hear.* 24, 1-11.
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, 1-13.
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, 1-17.
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, 1-21.
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, 1-15.
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, 1-17.
82. Xie, Z., Stakhovskaya, O. A., Goupell, M. J., and Anderson, S. (in press) “Aging effects on cortical responses to tones and speech in adult cochlear-implant users,” *J. Assoc. Res. Otol.*
83. Gray, W. O., Mayo, P. G., Goupell, M. J., and Brown, A. D. (in press) “Transmission of binaural cues by bilateral cochlear implants: Examining the impacts of bilaterally independent spectral peak-picking, pulse timing, and compression,” *Trends Hear.*
84. DeRoy Milvae, K., Kuchinsky, S. E., Stakhovskaya, O. A., and Goupell, M. J. (in press) “Dichotic listening performance and effort as a function of spectral resolution,” *J. Acoust. Soc. Am.*

II.J. Sponsored Research

II.J.1. Grants

Current External:

R01 DC014948

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

Source: National Institute on Deafness and Other Communication Disorders

Dates: 06/01/2016 – 05/31/2021 (no cost extension)

Role: PI

R01 AG051503

Title: Temporal processing and speech understanding in older cochlear implantees

Source: National Institute on Aging

Dates: 09/30/2016 – 04/30/2021 (no cost extension)

Role: PI

R01 AG051603-05S1

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

Dates: 08/01/2020 – 04/30/2021 (no cost extension)

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

Dates: 12/01/2016 – 11/30/2021

Role: Multi-PI (with Dr. Joshua Bernstein)

P01 AG055365

Title: Neuroplasticity in auditory aging

Source: National Institute on Aging

Dates: 09/15/2017 – 05/31/2022

Role: Co-I

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 – 6/30/2022
Role: Milvae (PI), Kuchinsky (co-sponsor), and Goupell (co-sponsor)

T32 DC000046
Title: Center of comparative evolutionary biology of hearing training grant
Source: National Institute on Deafness and Other Communication Disorders
Dates: 07/01/2021 – 06/30/2026
Role: Core Faculty Member
PIs: Carr, Gordon-Salant

Current Internal:

MIPS 6731
Title: Personalize headphone audio: Beyond HRTFs
Source: Maryland Industrial Partnerships
Dates: 1/1/2021 – 12/31/2021
Role: PI (with Industrial Partner Visisonics and Ramani Duraiswami)

MPowering the State
Title: Cochlear Implant Center of Excellence
Source: University of Maryland MPower Initiative
Dates: 07/01/2017 – 06/30/2022 (No Cost Extension)
PIs: Goupell, Newman, Nguyen, Eisenman, Hertzano

Consulting:

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

II.L. Submissions and Works in Progress

II.L.1. Current Grant Applications

R01 AG051503 Competitive Renewal
Title: Temporal processing and speech understanding in older cochlear implantees
Source: National Institute on Aging
Submission Date: 7/2021
Role: PI

R01 DC015798 Competitive Renewal
Title: Optimizing bilateral and single-sided deafness cochlear implants for functioning in complex auditory environments
Source: National Institute on Deafness and Communicative Disorders
Submission Date: 3/2021
Role: Multi-PI

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 2021 (60), Spring 2020 (61), Spring 2018 (60), Spring 2017 (71), Spring 2016 (55)

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

Hearing and Speech Sciences 499: Topics in HESP
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 634: Anatomy and Physiology of the Auditory and Vestibular
Systems
Summer 2020 (13), Summer 2019 (8), Summer 2018 (7), Summer 2017 (6), Summer 2016 (8)

Hearing and Speech Sciences 722: Psychoacoustics
Fall 2020 (12), Fall 2019 (8), Fall 2017 (8), Fall 2016 (8)

Hearing and Speech Sciences 724: Research Design
Spring 2016 (17)

III.C. Advising: Research or Clinical

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: 2022
5. Paul Mayo
Start Date: Fall 2018
Expected Date of Graduation: 2023

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. Jordan Abramowitz
15. Rebecca Higgins

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 – present.
5. Zilong Xie, Summer 2018 – Summer 2020.
6. Bobby Gibbs, Winter 2019 – present.

IV. Service and Outreach

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

IV.A.2. Editorial Boards

- Associate Editor for *Journal of the Acoustical Society of America* (June 2019 – May 2022)

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. *Journal of Speech, Language, and Hearing Research*
5. *Trends in Hearing*
6. *Hearing Research*
7. *Acta Acustica United with Acustica*
8. *International Journal of Audiology*
9. *Journal of Neurophysiology*
10. *Journal of Neuroscience*
11. *Transactions on Biomedical Engineering*
12. *Transactions on Neural Systems & Rehabilitation Engineering*
13. *PLOS ONE*
14. *Journal of Visualized Experiments*
15. *Brain and Behavior*
16. *Attention, Perception, and Psychophysics*

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

- National Institute of Health Small Business Innovation Research Study Section (2012 – 2020)
- National Institute of Health Hearing and Balance Fellowships Review (October 2020)
- Hearing Health Foundation (2017 – 2021)

- Action on Hearing Loss Charity (U.K.; 2018, 2020)
- Fondation Pour l'Audition Grant Review (France; April 2021)
- Grant review for Health and Medical Research Fund under The Government of the Hong Kong Special Administrative Region (Hong Kong; June 2021)

IV.A.6. Other

- External tenure review for University of Pittsburgh (2017)
- External tenure review for University of Connecticut (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.”