

# Gavin M. Bidelman, PhD

## Curriculum Vitae

April 2025

### Office address

Department of Speech, Language and Hearing Sciences  
Indiana University  
2631 East Discovery Parkway  
Bloomington, IN 47408  
Tel: (812) 855-9339  
Email: [gbidel@iu.edu](mailto:gbidel@iu.edu)  
www: [bidelman.lab.indiana.edu](http://bidelman.lab.indiana.edu) Twitter/X: [@BidelmanLab](https://twitter.com/BidelmanLab)

### Education

Ph.D.	2011	Purdue University, Speech, Language, & Hearing Sciences
B.S.	2007	University of Michigan, Sound Engineering ( <i>summa cum laude</i> )
B.M.	2007	University of Michigan, Music Theory ( <i>summa cum laude</i> )

### Professional

#### Academic appointments

Full Professor / AuD Program Director	Dept. of Speech, Language & Hearing Sci, Indiana University Program in Neuroscience ( <i>voting</i> ), Indiana University Cognitive Science Program ( <i>voting</i> ), Indiana University	2022 –
University Res. Professorship	University of Memphis	2021 – 2024
Asst/Assoc/Full Professor	School of Communication Sciences & Disorders, Institute for Intelligent Systems, University of Memphis	2012 – 2022
Faculty Affiliate	Department of Anatomy & Neurobiology, University of Tennessee Health Science Center (UTHSC)	2016 – 2022
Postdoctoral Fellow	Rotman Research Inst., Baycrest Geriatric Hospital, Toronto	2011 – 2012
Research Assistant	Dept. of Speech, Language, & Hearing Sciences, Purdue	2007 – 2011
NIH Predoctoral Fellow	Dept. of Speech, Language, & Hearing Sciences, Purdue	2008 – 2010

#### Editorial

Editor	Journal of Speech, Language, and Hearing Research (JSLHR)	2024 –
Editorial Board	Scientific Reports	2024 –
Academic Editor	PLoS One	2024 –
Editorial Board	Audiology Research	2023 –
Editorial Board	Brain Sciences	2022 –
Associate Editor	Frontiers in Auditory Cognitive Neuroscience	2015 –
Associate Editor	Psychomusicology: Music, Mind and Brain	2019 – 2023
Assistant Editor	Ear & Hearing	2010 – 2015

### Research

#### Research interests

Neuroimaging of auditory perception/cognition in normal and hearing-impaired listeners; experience-dependent plasticity; “cocktail party” listening; auditory-cognitive aging; individual differences in listening skills; brainstem and cortical ERPs; EEG; hierarchical neurocomputation; neurobiology of music/language

#### Bibliometrics ([Google Scholar Bio](https://scholar.google.com/citations?user=gbidel))

h-index:	49 (≥ 49 papers each cited ≥ 49 times)
h10-index:	119 (≥ 119 papers each cited ≥ 10 times)
Total citations:	8002
Grant funding:	>\$2.9 million

## Grant funding

### Funded grants

1. PI. "Characterizing the functional role of auditory corticofugal efferent pathways to human hearing using in-vivo multimodal neuroimaging," Indiana Clinical and Translational Sciences Institute (CTSI), 7/23–6/25, \$10,000.
2. Consultant (PI: Yan Yu, St. John's University). "Deciphering the neural mechanisms of music processing in the developing brain: A multi-feature and multi-cultural comparison," National Institutes of Health, 1R16GM146697, 7/22 – 6/26, \$919,672 (\$50,000 to G.M.B).
3. PI. "Neuroimaging biomarkers of speech processing deficits in Mild Cognitive Impairments," National Institutes of Health (NIDCD/NIA) R01DC016267-03S1 (Supplement), 6/20–4/24 (NCE), \$296,259.
4. PI. "Neural dynamics underlying the emergence of auditory categorization and learning," National Institutes of Health (NIDCD) R01DC016267, 5/18–4/24 (NCE), \$1,879,543.
5. Co-I (PI: Claude Alain, Rotman Research Inst., Toronto). "The impacts of hearing aid use on auditory cognition: A functional connectivity analysis," William Demant Foundation (Denmark), 8/20–7/23, \$166,000 (USD).
6. Faculty Sponsor (PI: Kelsey Mankel, PhD student). "Neural bases of successful auditory learning," NIH/NIDCD F31 Predoctoral NSRA Fellowship, 6/20–5/22, \$91,040.
7. Co-I (PI: Miriam van Mersbergen). "Health for Artists," University of Memphis Communities of Research Scholars (CoRS) Program (intramural), 11/19-10/20, \$2,500.
8. PI. "Neural dynamics underlying the emergence of auditory categorization and learning," University of Memphis Research Investment Fund (intramural), 3/17–2/18, \$20,000.
9. PI. "Minimizing noise-induced hearing loss with musicianship," GRAMMY® Foundation, 4/14–6/16, \$20,000.
10. PI. "Central neurophysiological markers underlying speech-in-noise perception," American Academy of Audiology Foundation, New Investigator Grant, 4/14–5/15, \$10,000.
11. PI. "Central neurophysiological markers underlying degraded speech recognition," American Hearing Research Foundation, 5/14–6/15, \$20,000.
12. Co-PI (PI: S. Tak, UofM Nursing). "Therapeutic computer-assisted stimulating activity in dementia," FedEx Institute of Technology, University of Memphis (intramural), 1/14–3/16, \$332,000.
13. PI. "The impact of music on speech processing in older adults," GRAMMY® Foundation, 4/12–8/13, \$20,000.
14. PI. "Neural correlates of musical and linguistic pitch as revealed in the auditory brainstem," Bilsland Doctoral Dissertation Award, Purdue University (intramural), 9/10–6/11, \$44,622.

## Publications

### Peer-reviewed journal articles (\*predoc/\*\*postdoc trainee 1<sup>st</sup> author; †shared 1<sup>st</sup> author; [PDFs reprints](#))

1. \*MacLean, J. A., Stirn, J. R., & **Bidelman, G. M.** (in press). Alpha-band brain activity shapes online perceptual learning of concurrent speech differentially in musicians vs. non-musicians. *European Journal of Neuroscience*.
2. **Bidelman, G. M.**, Bernard, F., & Skubic, K. (2025). Hearing in categories and speech streaming at the "cocktail party". *PLoS One*, 20(1), e0318600.
3. **Bidelman, G. M.**, York, A., & Pearson, C. (2025). Neural correlates of phonetic categorization under auditory (phoneme) and visual (grapheme) modalities. *Neuroscience*, 565, 182-191.
4. \*MacLean, J. A., Drobny, E., Rizzi, R., & **Bidelman, G. M.** (2024). Musicianship modulates cortical effects of attention on processing musical triads. *Brain Sciences*, 14(11), 1079.

5. \*Rizzi, R. & **Bidelman, G. M.** (2024). Functional benefits of continuous vs. categorical listening strategies on the neural encoding and perception of noise-degraded speech. *Brain Research*, 1844(149166), 1-12.
6. \*He, D., Buder, E. H., & **Bidelman, G. M.** (2024). Cross-linguistic and acoustic-driven effects on multiscale neural synchrony to stress rhythms. *Brain and Language*, 256(105463), 1-12.
7. \*Cao, M., Pavlik, P. I., & **Bidelman, G. M.** (2024). Enhancing lexical tone learning for second language speakers: Effects of acoustic properties in Mandarin tone perception. *Frontiers in Psychology*, 15(1403816), 1-15.
8. **Bidelman, G. M.**, Sisson, A., Rizzi, R., MacLean, J., & Baer, K. (2024). Myogenic artifacts masquerade as neuroplasticity in the auditory frequency-following response (FFR). *Frontiers in Neuroscience*, 18, 1-13.
9. \*Momtaz, S. & **Bidelman, G. M.** (2024). Effects of stimulus rate and periodicity on auditory cortical entrainment to continuous sounds. *eNeuro*, 11(3), 1-13.
10. Khatun, S., Morshed, B. I., & **Bidelman, G. M.** (2024). Monitoring disease severity of mild cognitive impairment from single-channel EEG data using regression analysis. *Sensors*, 24(4), 1054.
11. \*MacLean, J. A., Stirn, J. R., Sisson, A. E., & **Bidelman, G. M.** (2024). Short- and long-term neuroplasticity interact during the perceptual learning of concurrent speech. *Cerebral Cortex*, 34(2), 1-13.
12. Alain, C., Göke, K., Shen, D., **Bidelman, G. M.**, Bernstein, L. J., & Snyder, J. S. (2023). Neural alpha oscillations index context-driven perception of ambiguous vowel sequences. *iScience*, 26(12), 108457.
13. \*Momtaz, S., Moncrieff, D., Ray, M.A., & **Bidelman, G. M.** (2023). Children with amblyaudia show less flexibility in auditory cortical entrainment to periodic non-speech sounds. *International Journal of Audiology*, 62(10), 920-926.
14. \*Rizzi, R. & **Bidelman, G. M.** (2023). Duplex perception reveals brainstem auditory representations are modulated by listeners' ongoing percept for speech. *Cerebral Cortex*, 33(18), 10076-10086.
15. **Bidelman, G. M.** & Carter, J. A. (2023). Continuous dynamics in behavior reveal interactions between perceptual warping in categorization and speech-in-noise perception. *Frontiers in Neuroscience*, 17(1032369), 1-13.
16. \*He, D., Buder, E. H., & **Bidelman, G. M.** (2023). Effects of syllable rate on neuro-behavioral synchronization across modalities: Brain oscillations and speech productions. *Neurobiology of Language*, 4(2), 344-360.
17. \*Carter, J. & **Bidelman, G. M.** (2023). Perceptual warping exposes categorical representations for speech in human brainstem responses. *NeuroImage*, 269 (119899), 1-14.
18. \*\*Lai, J., Alain C., & **Bidelman, G. M.** (2023). Cortical-brainstem interplay during speech perception in older adults with and without hearing loss. *Frontiers in Neuroscience*, 17 (1075368), 1-12.
19. \*Moinuddin, K. A., Havugimana, F., Al-Fahad, R., **Bidelman, G. M.**, & Yeasin, M. (2023). Unraveling spatial-spectral dynamics of speech categorization speed using convolutional neural networks. *Brain Sciences*, 13(1), 75.
20. \*\*Lai, J. & **Bidelman, G. M.** (2022). Relative changes in the cochlear summing potentials to paired-clicks predict speech-in-noise perception and subjective hearing acuity. *JASA Express Letters*, 2(10), 102001.
21. \*Brown, J. A., & **Bidelman, G. M.** (2022). Familiarity of background music modulates the cortical tracking of target speech at the cocktail party. *Brain Sciences*, 12(10), 1320. [invited paper]
22. Bugos, J., **Bidelman, G. M.**, Moreno, S., Shen, D., Lu, J., & Alain, C. (2022). Music and visual art training increase auditory-evoked theta oscillations in older adults. *Brain Sciences*, 12(10), 1300.
23. \*\*Lai, J., Price C. N., & **Bidelman, G. M.** (2022). Brainstem speech encoding is dynamically shaped online by fluctuations in cortical  $\alpha$  state. *NeuroImage*. 263(119627), 1-14.
24. **Bidelman, G. M.**, Chow, R., Noly-Gandon, A., Ryan, J. D., Bell, K. L., Rizzi, R., and Alain, C. (2022). Transcranial direct current stimulation (tDCS) combined with listening to preferred music alters cortical speech processing in older adults. *Frontiers in Neuroscience*, 16(884130), 1-13.

25. Lu, J. Moussard, A., Guo, S., Lee, Y., **Bidelman, G. M.**, Moreno, S., Skrotzki, C., Bugos, J., Shen, D., Yao, D., and Alain, C. (2022). Music training modulates theta brain oscillations associated with response suppression. *Annals of the New York Academy of Sciences*, 1516(1), 212-221. [special issue for "Neuroscience of Music VII (NMVII): Connecting with music across the lifespan"]].
26. \*\*Price, C. N. & **Bidelman, G. M.** (2022). Musical experience partially counteracts temporal speech processing deficits in putative mild cognitive impairment. *Annals of the New York Academy of Sciences*, 1516(1), 114-122. [special issue for "Neuroscience of Music VII (NMVII): Connecting with music across the lifespan"]].
27. \*Mankel, K., Shrestha, U., Tipirneni-Sajja, A., & **Bidelman, G.M.** (2022). Functional plasticity coupled with structural predispositions in auditory cortex shape successful music category learning. *Frontiers in Neuroscience*, 16(897239), 1-14.
28. \*Brown, J. A. & **Bidelman, G. M.** (2022). Song properties and familiarity affect speech recognition in musical noise. *Psychomusicology: Music, Mind, and Brain*, 32(1-2), 1-6.
29. \*Carter, J. A., Buder, E. H., & **Bidelman, G. M.** (2022). Nonlinear dynamics in auditory cortical activity reveal the neural basis of perceptual warping in speech categorization. *JASA Express Letters*, 2(4), 045201. [invited paper]
30. Chung, W.-L. & **Bidelman, G. M.** (2022). Acoustic features of oral reading prosody and the relation with reading fluency and reading comprehension in Taiwanese children. *Journal of Speech, Language, and Hearing Research*, 65(1), 334-343.
31. \*Shukla, B. & **Bidelman, G.M.** (2021). Enhanced brainstem phase-locking in low-level noise reveals stochastic resonance in the frequency-following response (FFR). *Brain Research*, 1771, 147643. [special issue "New frontiers in studying the neural substrates enabling speech in noise comprehension"]]
32. Iannaccone, A., Brewer, C. C., Cheng, P., Duncan, J. L., Maguire, M. G., Audo, I., Ayala, A. R., Bernstein, P., **Bidelman, G. M.**, Cheetham, J. K., Doty, R., Durham, T. A., Hufnagel, R. B., Myers, M., Stingl, K., & Zein, W. (2021). Auditory and olfactory findings in patients with USH2A related retinal degeneration – findings at baseline from the rate of progression in USH2A-related retinal degeneration natural history study (RUSH2A). *American Journal of Medical Genetics- Part A*, 185A, 3717–3727.
33. \*Momtaz, S., Moncrieff, D., & **Bidelman, G. M.** (2021). Dichotic listening deficits in amblyaudia are characterized by aberrant neural oscillations in auditory cortex. *Clinical Neurophysiology*, 132(9), 2152-2162.
34. \*Price, C. N. & **Bidelman, G. M.** (2021). Attention reinforces human corticofugal system to aid speech perception in noise. *NeuroImage*, 235(118014), 1-9.
35. \*Mahmud, S., Yeasin, M., & **Bidelman, G. M.** (2021). Data-driven machine learning models for decoding speech categorization from evoked brain responses. *Journal of Neural Engineering*, 18(4), 046012.
36. \*Mahmud, S., Yeasin, M., & **Bidelman, G. M.** (2021). Speech categorization is better described by induced rather than evoked neural activity. *Journal of the Acoustical Society of America*, 149(3), 1644-1656. [special issue on "Machine Learning in Acoustics"]]
37. **Bidelman, G. M.**, Pearson, C., & Harrison, A. (2021). Lexical influences on categorical speech perception are driven by a temporoparietal circuit. *Journal of Cognitive Neuroscience*, 33(5), 840–852.
38. \*Carter, J. A. & **Bidelman, G. M.** (2021). Auditory cortex is susceptible to lexical influence as revealed by informational vs. energetic masking of speech categorization. *Brain Research*, 1759, 147385. [special issue "New frontiers in studying the neural substrates enabling speech in noise comprehension"]]
39. **Bidelman, G. M.** & Momtaz, S. (2021). Subcortical rather than cortical sources of the frequency-following response (FFR) relate to speech-in-noise perception in normal-hearing listeners. *Neuroscience Letters*, 746, 135664.
40. Chung, W.-L., Jarmulowicz, L., & **Bidelman, G. M.** (2021). Cross-linguistic contributions of acoustic cues and prosodic awareness to first and second language vocabulary knowledge. *Journal of Research in Reading*, 44(2), 434–452.

41. Chung, W.-L. & **Bidelman, G. M.** (2021). Mandarin-speaking preschoolers' pitch discrimination, prosodic and phonological awareness, and their relation to receptive vocabulary and reading abilities. *Reading and Writing*, 34(2), 337–353
42. **Bidelman, G. M.**, Brown, J., & Bashivan, P. (2021). Auditory cortex supports verbal working memory capacity. *NeuroReport*, 32(2), 163-168. [selected for cover art of journal issue]
43. **Bidelman, G. M.** & Yoo, J. (2020). Musicians show improved speech segregation in competitive, multitalker cocktail party scenarios. *Frontiers in Psychology*, 11(1927), 1-11.
44. \*Mahmud, S., Ahmed, F., Al-Fahad, R., Moinuddin, K. A., Yeasin, M., Alain, C., & **Bidelman, G. M.** (2020). Decoding hearing-related changes in older adults' spatiotemporal neural processing of speech using machine learning. *Frontiers in Neuroscience*, 14(748), 1-15.
45. Myers, M. H., Padmanabha, A., **Bidelman, G. M.**, & Wheless, J. W. (2020). Seizure localization using EEG analytical signals. *Clinical Neurophysiology*, 131(9), 2131-2139.
46. **Bidelman, G. M.** & Bhagat, S. P. (2020). Brainstem correlates of cochlear nonlinearity measured via the scalp-recorded frequency-following response (FFR). *NeuroReport*, 31(10), 702-707. [selected for cover art of journal issue]
47. **Bidelman, G. M.**, Bush, L. C., & Boudreaux, A. M. (2020). Effects of noise on the behavioral and neural categorization of speech. *Frontiers in Neuroscience*, 14(153), 1-13.
48. \*Al-Fahad, R., Yeasin, M., & **Bidelman, G. M.** (2020). Decoding of single-trial EEG reveals unique states of functional brain connectivity that drive rapid speech categorization decisions. *Journal of Neural Engineering*, 17(1), 016045.
49. **Bidelman, G. M.** & Myers, M. H. (2020). Frontal cortex selectively overrides auditory sensory processing to bias perception for looming sonic motion. *Brain Research*, 1726 (146507), 1-8.
50. **Bidelman, G. M.**, Brown, B., Mankel, K., & Price, C. N. (2020). Psychobiological responses reveal audiovisual noise differentially challenges speech recognition. *Ear and Hearing*, 41(2), 268-277.
51. \*\*Lewis, G. & **Bidelman, G. M.** (2020). Autonomic nervous system correlates of speech categorization revealed through pupillometry. *Frontiers in Neuroscience*, 13 (1418), 1-10.
52. \*Mankel, K., \*Barber, J., & **Bidelman, G. M.** (2020). Auditory categorical processing for speech is modulated by inherent musical listening skills. *NeuroReport*, 31(2), 162-166.
53. **Bidelman, G. M.**, Price, C. N., Shen, D., Arnott, S., & Alain, C. (2019). Afferent-efferent connectivity between auditory brainstem and cortex accounts for poorer speech-in-noise comprehension in older adults. *Hearing Research*, 382 (107795), 1-12.
54. **Bidelman, G. M.** & Walker, B. (2019). Plasticity in auditory categorization is supported by differential engagement of the auditory-linguistic network. *NeuroImage*, 201(116022), 1-10.
55. \*Price, C. N., Alain, C., & **Bidelman, G. M.** (2019). Auditory-frontal channeling in  $\alpha$  and  $\beta$  bands is altered by age-related hearing loss and relates to speech perception in noise. *Neuroscience*, 423, 18-28.
56. **Bidelman, G. M.**, Mahmud, M. S., Yeasin, M., Shen, D., Arnott, S., & Alain, C. (2019). Age-related hearing loss increases full-brain connectivity while reversing directed signaling within the dorsal-ventral pathway for speech. *Brain Structure and Function*, 224(8), 2661-2676.
57. **Bidelman, G. M.** & Heath, S. T. (2019). Enhanced temporal binding of audiovisual information in the bilingual brain. *Bilingualism: Language and Cognition*, 22(4), 752-762.
58. **Bidelman, G. M.**, Sigley, L., & Lewis, G. (2019). Acoustic noise and vision differentially warp speech categorization. *Journal of the Acoustical Society of America*, 146(1), 60-70.
59. Yoo, H., Buder, E. H., Bowman, D. D., **Bidelman, G. M.**, & Oller, D. K. (2019). Acoustic correlates and adult perceptions of distress in infant speech-like vocalizations and cries. *Frontiers in Psychology*, 10(1154), 1-18.
60. Lee, S., Mendel, L. L., & **Bidelman, G. M.** (2019). Predicting speech recognition using the speech intelligibility index and other variables for cochlear implant users. *Journal of Speech, Language, and Hearing Research*, 62(5), 1517-1531.

61. \*Khatun, S., Morshed, B. I., & **Bidelman, G. M.** (2019). A single-channel EEG based approach to detect mild cognitive impairment via speech-evoked brain responses. *IEEE Transactions on Neural Systems & Rehabilitation Engineering*, 27(5), 1063-1070.
62. \*Yoo, J. & **Bidelman, G. M.** (2019). Linguistic, perceptual, and cognitive factors underlying the musician benefit to noise-degraded speech perception. *Hearing Research*, 377, 185-195.
63. \*Yellamsetty, A. & **Bidelman, G. M.** (2019). Brainstem correlates of concurrent speech identification in adverse listening conditions. *Brain Research*, 1714, 182-192.
64. Alain, C., Moussard, A., Singer, J., Lee, Y., **Bidelman, G. M.**, & Moreno, S. (2019). Music and visual art training modulate brain activity in older adults. *Frontiers in Neuroscience*, 13(182), 1-15.
65. **Bidelman, G. M.** & Heath, S. T. (2019). Neural correlates of enhanced audiovisual processing in the bilingual brain. *Neuroscience*, 401, 11-20
66. \*Mankel, K. & **Bidelman, G. M.** (2018). Inherent auditory skills rather than formal music training shape the neural encoding of speech. *Proceedings of National Academy of Sciences of the United States of America*, 115(51), 13129-13134.
67. \*Mahajan, R., Morshed, B. I., & **Bidelman, G. M.** (2018). BRAINsensors: Body-worn reconfigurable architecture of integrated network sensors. *Journal of Medical Systems*, 42(185), 1-14.
68. **Bidelman, G. M.**, Davis, M. K., & Pridgen, M. H. (2018). Brainstem-cortical functional connectivity for speech is differentially challenged by noise and reverberation. *Hearing Research*, 367, 149-160.
69. **Bidelman, G. M.** & Powers, L. (2018). Response properties of the human frequency-following response (FFR) to speech and nonspeech sounds: Level dependence, adaptation, and phase-locking limits. *International Journal of Audiology*, 57(9), 665-672.
70. **Bidelman, G. M.** (2018). Subcortical sources dominate the neuroelectric auditory frequency-following response to speech. *NeuroImage*, 175, 56-69.
71. \*Yellamsetty, A. & **Bidelman, G. M.** (2018). Low- and high-frequency cortical brain oscillations reflect dissociable mechanisms of concurrent speech segregation in noise. *Hearing Research*, 361, 92-102.
72. **Bidelman, G. M.**, Pousson, M., Dugas, C., & Fehrenbach, A. (2018). Test-retest reliability of dual-recorded brainstem vs. cortical auditory evoked potentials to speech. *Journal of the American Academy of Audiology*, 29(2), 164-174.
73. **Bidelman, G. M.** (2018). Sonification of scalp-recorded frequency-following responses (FFRs) offers improved response detection over conventional statistical metrics. *Journal of Neuroscience Methods*, 293, 59-66.
74. Myers, M. H. Iannaccone, A., & **Bidelman, G. M.** (2017). A pilot investigation of audiovisual processing and multisensory integration in patients with inherited retinal dystrophies. *BMC Ophthalmology*, 17(240), 1-13.
75. \*Chung, W.-L., Jarmulowicz, L., & **Bidelman, G. M.** (2017). Auditory processing, linguistic prosody awareness, and word reading in Mandarin-speaking children learning English. *Reading and Writing*, 30(7), 1407–1429.
76. \*Lee, S. & **Bidelman, G. M.** (2017). Objective identification of simulated cochlear implant settings in normal-hearing listeners via auditory cortical evoked potentials. *Ear & Hearing*, 38(4), e215-e226.
77. **Bidelman, G. M.** & Yellamsetty, A. (2017). Noise and pitch interact during the cortical segregation of concurrent speech. *Hearing Research*, 351, 34-44.
78. **Bidelman, G. M.**, Lowther, J. E., Tak, S. H., & Alain, C. (2017). Mild cognitive impairment is characterized by deficient hierarchical speech coding between auditory brainstem and cortex. *Journal of Neuroscience*, 37(13), 3610-3620.
79. **Bidelman, G. M.** (2017). Amplified induced neural oscillatory activity predicts musicians' benefits in categorical speech perception. *Neuroscience*, 348, 107-113.
80. **Bidelman, G. M.** & Walker, B. (2017). Attentional modulation and domain specificity underlying the neural organization of auditory categorical perception. *European Journal of Neuroscience*, 45, 690-699.

81. Almishaal, A., **Bidelman, G. M.**, & Jennings, S. G. (2017). Notched-noise precursors improve detection of low-frequency amplitude modulation. *Journal of the Acoustical Society of America*, 141(1), 324- 333.
82. Alain, C., Arsenault, J. S., Garami, L., **Bidelman, G. M.**, & Snyder, J. S. (2017). Neural correlates of speech segregation based on formant frequencies of adjacent vowels. *Scientific Reports*, 7(40790), 1-11.
83. **Bidelman, G. M.**, Schneider, A. D., Heitzmann, V. R., & Bhagat, S. P. (2017). Musicianship enhances ipsilateral and contralateral efferent gain control to the cochlea. *Hearing Research*, 344, 275-283.
84. **Bidelman, G. M.** & Bhagat, S. P. (2017). Cochlear, brainstem, and psychophysical responses reveal spectrotemporal tradeoff in human auditory processing. *NeuroReport*, 28(1), 17-22.
85. **Bidelman, G. M.** (2016). Relative contribution of envelope and fine structure to the subcortical encoding of noise-degraded speech. *Journal of the Acoustical Society of America*, 140(4), EL358-363.
86. \*Hutka, S., Carpentier, S., **Bidelman, G. M.**, Moreno, S., & McIntosh, A. R. (2016). Musicianship and tone language are associated with differential changes in brain signal variability. *Journal of Cognitive Neuroscience*, 28(12), 2044-2058.
87. **Bidelman, G. M.** (2016). Musicians have enhanced audiovisual multisensory binding: Experience-dependent effects in the double-flash illusion. *Experimental Brain Research*, 234(10), 3037-3047.
88. **Bidelman, G. M.** & Patro, C. (2016). Auditory perceptual restoration and illusory continuity correlates in the human brainstem. *Brain Research*, 1646, 84-90.
89. \*Chung, W.-L. & **Bidelman, G. M.** (2016). Cortical encoding and neurophysiological tracking of English stress patterns in native and nonnative speakers. *Brain and Language*, 156-156, 49-57.
90. **Bidelman, G. M.** & Bhagat, S. P. (2016). Objective detection of auditory steady-state evoked potentials based on mutual information. *International Journal of Audiology*, 55(5), 313-319.
91. **Bidelman, G. M.**, Nelms, C., & Bhagat, S. P. (2016). Musical experience sharpens human cochlear tuning. *Hearing Research*, 335, 40-46.
92. **Bidelman, G. M.** & Howell, M. (2016). Functional changes in inter- and intra-hemispheric auditory cortical processing underlying degraded speech perception. *NeuroImage*, 124, 581-590.
93. Cousineau, M., **Bidelman, G. M.**, Peretz, I., & Lehmann, A. (2015). On the relevance of natural stimuli for the study of brainstem correlates: The example of consonance perception. *PLoS One*, 10(12), e0145439.
94. Rose, N. S., Rendell, P. G., Hering, A., Kliegel, M., **Bidelman, G. M.**, Craik, F. I. M. (2015). Cognitive and neural plasticity in older adults' prospective memory following training with the virtual week computer game. *Frontiers in Human Neuroscience*, 9(592), 1-13.
95. **Bidelman, G. M.**, Jennings, S. G., & Strickland, E. A. (2015). PsyAcoustX: A flexible MATLAB® package for psychoacoustics research. *Frontiers in Psychology*, 6(1498), 1-11.
96. **Bidelman, G. M.** & Chung, W.-L. (2015). Tone-language speakers show hemispheric specialization and differential cortical processing of contour and interval cues for pitch. *Neuroscience*, 305, 384-392.
97. **Bidelman, G. M.** (2015). Sensitivity of the cortical pitch onset response to height, time-variance, and directionality of dynamic pitch. *Neuroscience Letters*, 603, 89-93.
98. **Bidelman, G. M.** & Lee, C.-C. (2015). Effects of language experience and stimulus context on the neural organization and categorical perception of speech. *NeuroImage*, 120, 191-200.
99. **Bidelman, G. M.** & Bhagat, S. P. (2015). Right ear advantage drives the link between olivocochlear efferent "antimasking" and speech-in-noise listening benefits. *NeuroReport*, 26, 483-487.
100. \*Hutka, S., **Bidelman, G. M.**, & Moreno, S. (2015). Pitch expertise is not created equal: Cross-domain effects of music and tone language experience on neural and behavioural discrimination of speech and music. *Neuropsychologia*, 71, 52-63.
101. **Bidelman, G. M.** (2015). Multichannel recordings of the human brainstem frequency-following response: Scalp topography, source generators, and distinctions from the transient ABR. *Hearing Research*, 323, 68-80.

102. **Bidelman, G. M.** & Dexter, L. (2015). Bilinguals at the "cocktail party": Dissociable neural activity in auditory-linguistic brain regions reveals neurobiological basis for nonnative listeners' speech-in-noise recognition deficits. *Brain and Language*, 143, 32-41.
103. \*†Weiss, M. W. & †**Bidelman, G. M.** (2015). Listening to the brainstem: Musicianship enhances intelligibility of subcortical representations for speech. *Journal of Neuroscience*, 35(4), 1687-1691.
104. **Bidelman, G. M.** & Alain, C. (2015). Musical training orchestrates coordinated neuroplasticity in auditory brainstem and cortex to counteract age-related declines in categorical vowel perception. *Journal of Neuroscience*, 35(3), 1240–1249. [Press: CBS News, The Washington Post, National Post]
105. **Bidelman, G. M.** (2015). Towards an optimal paradigm for simultaneously recording cortical and brainstem auditory evoked potentials. *Journal of Neuroscience Methods*, 241, 94-100.
106. **Bidelman, G. M.** & Alain, C. (2015). Hierarchical neurocomputations underlying concurrent sound segregation: Connecting periphery to percept. *Neuropsychologia*, 68, 38–50.
107. **Bidelman, G. M.** (2015). Induced neural beta oscillations predict categorical speech perception abilities. *Brain and Language*, 141, 62-69.
108. \*Bashivan, P., **Bidelman, G. M.**, & Yeasin, M. (2014). Spectrotemporal dynamics of the EEG during working memory encoding and maintenance predicts individual behavioral capacity. *European Journal of Neuroscience*, 40(12), 3774–3784.
109. Arsenault, J., He, Y., **Bidelman, G. M.**, & Alain, C. (2014). The impact of context on the perceptual organization of speech. *Journal of the Canadian Acoustical Association*, 42(3), 72-73.
110. **Bidelman, G. M.**, Villafuerte, J. W., & Moreno, S., & Alain, C. (2014). Age-related changes in the subcortical-cortical encoding and categorical perception of speech. *Neurobiology of Aging*, 35(11), 2526-2540.
111. **Bidelman, G. M.** & Grall, J. (2014). Functional organization for musical consonance and tonal pitch hierarchy in human auditory cortex. *NeuroImage*, 101, 204-214.
112. **Bidelman, G. M.** (2014). Objective information-theoretic algorithm for detecting brainstem evoked responses to complex stimuli. *Journal of the American Academy of Audiology*, 25(8), 711-722.
113. **Bidelman, G. M.**, Weiss, M. W., & Moreno, S., & Alain, C. (2014). Coordinated plasticity in brainstem and auditory cortex contributes to enhanced categorical speech perception in musicians. *European Journal of Neuroscience*, 40, 2662-2673.
114. **Bidelman, G. M.**, Schug, J. M., Jennings, S. G., & Bhagat, S. P. (2014). Psychophysical auditory filter estimates reveal sharper cochlear tuning in musicians. *Journal of the Acoustical Society of America*, 136(1), EL33-39.
115. **Bidelman, G. M.** & Syed Khaja, A. (2014). Spectrotemporal resolution tradeoff in auditory processing as revealed by human auditory brainstem responses and psychophysical indices. *Neuroscience Letters*, 572, 53-57.
116. Moreno, S. & **Bidelman, G. M.** (2014). Examining neural plasticity and cognitive benefit through the unique lens of musical training. *Hearing Research*, 308, 84-97. [invited paper for special issue "Music: A window into the hearing brain"; Top 25 most downloaded articles from *Hearing Research* (April 2016)]
117. Trainor, L. J., Marie, C., Bruce, I. C., & **Bidelman, G. M.** (2014). Explaining the high voice superiority effect in polyphonic music: Evidence from cortical evoked potentials and peripheral auditory models. *Hearing Research*, 308, 60-70. [invited paper for special issue "Music: A window into the hearing brain"]
118. Alain, C., Zendel, B. R., Hutka, S., & **Bidelman, G. M.** (2014). Turning down the noise: The benefit of musical training on the aging auditory brain. *Hearing Research*, 308, 162-173. [invited paper for special issue "Music: A window into the hearing brain"]
119. \*Hutka, S., **Bidelman, G. M.**, & Moreno, S. (2013). Brain signal variability as a window into the bidirectionality between music and language processing: Moving from a linear to a nonlinear model. *Frontiers in Psychology*, 4(984), 1-11.



120. \*Hutka, S. A., Binns, M. A., **Bidelman, G. M.**, & Alain, C. (2013). Age-related differences in the sequential organization of speech sounds. *Journal of the Acoustical Society of America*, 133(6), 4177–4187.
121. **Bidelman, G. M.**, Moreno, S., & Alain, C. (2013). Tracing the emergence of categorical speech perception in the human auditory system. *NeuroImage*, 79(1), 201–212.
122. **Bidelman, G. M.** (2013). The role of the auditory brainstem in processing musically-relevant pitch. *Frontiers in Psychology*, 4(264), 1–13. [invited paper for research topic on “*The Musical Brain*”]
123. **Bidelman, G. M.**, Hutka, S., & Moreno, S. (2013). Tone language speakers and musicians share enhanced perceptual and cognitive abilities for musical pitch: Evidence for bidirectionality between the domains of language and music. *PLoS One*, 8(4), e60676. [Press: *New York Times*, *Huffington Post*, *Globe & Mail*] [In June 2017, among the top 10% of most cited papers among >150K articles published in *PloS One*]
124. Krishnan, A., **Bidelman, G. M.**, Smalt, C. J., Ananthakrishnan, S., & Gandour, J. T. (2012). Relationship between brainstem, cortical, and behavioral measures relevant to pitch salience in humans. *Neuropsychologia*, 50(12), 2849–2859.
125. Smalt, C. J., Krishnan, A., **Bidelman, G. M.**, Ananthakrishnan, S., & Gandour, J. T. (2012). Distortion products and their influence on representation of pitch-relevant information in the human brainstem for unresolved harmonic complex tones. *Hearing Research*, 292(1-2), 26–34.
126. Krishnan, A., Gandour, J. T., & **Bidelman, G. M.** (2012). Experience-dependent plasticity in pitch encoding: From brainstem to auditory cortex. *NeuroReport*, 23(8), 498–502. [invited paper]
127. Krishnan, A., Gandour, J. T., Ananthakrishnan, S., **Bidelman, G. M.**, & Smalt, C. J. (2011). Functional ear (a)symmetry in brainstem neural activity relevant to encoding of voice pitch: A precursor for hemispheric specialization? *Brain and Language*, 119(3), 226–231.
128. Krishnan, A., Gandour, J. T., Ananthakrishnan, S., **Bidelman, G. M.**, & Smalt, C. J. (2011). Linguistic status of timbre influences pitch encoding in the brainstem. *NeuroReport*, 22(16), 801–803.
129. **Bidelman, G. M.**, Gandour, J. T., & Krishnan, A. (2011). Musicians demonstrate experience-dependent subcortical enhancement of musical scale features within continuously gliding pitch. *Neuroscience Letters*, 503(3), 203–207.
130. **Bidelman, G. M.**, Gandour, J. T., & Krishnan, A. (2011). Musicians and tone-language speakers share enhanced brainstem encoding but not perceptual benefits for musical pitch. *Brain and Cognition*, 77(1), 1–10.
131. Henry, K. S., Gall, M. D., **Bidelman, G. M.**, & Lucas, J. R. (2011). Songbirds trade off auditory frequency resolution and temporal resolution. *Journal of Comparative Physiology-A*, 197(4), 351–359.
132. **Bidelman, G. M.**, & Heinz, M.G. (2011). Auditory-nerve responses predict pitch attributes related to musical consonance-dissonance for normal and impaired hearing. *Journal of the Acoustical Society of America*, 130(3), 1488–1502.
133. **Bidelman, G. M.**, & Krishnan, A. (2011). Brainstem correlates of behavioral and compositional preferences of musical harmony. *NeuroReport*, 22(5), 212–216.
134. **Bidelman, G. M.**, Krishnan, A., & Gandour, J. T. (2011). Enhanced brainstem encoding predicts musicians’ perceptual advantages with pitch. *European Journal of Neuroscience*, 33(3), 530–538.
135. **Bidelman, G. M.**, Gandour, J. T., & Krishnan, A. (2011). Cross-domain effects of music and language experience on the representation of pitch in the human auditory brainstem. *Journal of Cognitive Neuroscience*, 23(2), 424–434.
136. **Bidelman, G. M.**, & Krishnan, A. (2010). Effects of reverberation on brainstem representation of speech in musicians and non-musicians. *Brain Research*, 1355, 112–125.
137. Krishnan, A., Gandour, J. T., Smalt, C. J., & **Bidelman, G. M.** (2010). Language-dependent pitch encoding advantage in the brainstem is not limited to acceleration rates that occur in natural speech. *Brain and Language*, 114(3), 193–198.

138. Krishnan, A., **Bidelman, G. M.**, & Gandour, J. T. (2010). Neural representation of pitch salience in the human brainstem revealed by psychophysical and electrophysiological indices. *Hearing Research*, 268(1-2), 60–66.
139. Krishnan, A., Gandour, J. T., & **Bidelman, G. M.** (2010). Brainstem pitch representation in native speakers of Mandarin is less susceptible to degradation of stimulus periodicity. *Brain Research*, 1313, 124–133.
140. Krishnan, A., Gandour, J. T., & **Bidelman, G. M.** (2010). The effects of tone language experience on pitch processing in the brainstem. *Journal of Neurolinguistics*, 23(1), 81–95.
141. **Bidelman, G. M.**, & Krishnan, A. (2009). Neural correlates of consonance, dissonance, and the hierarchy of musical pitch in the human brainstem. *Journal of Neuroscience*, 29(42), 13165–13171.
142. Krishnan, A., Gandour, J. T., **Bidelman, G. M.**, & Swaminathan, J. (2009). Experience-dependent neural representation of dynamic pitch in the brainstem. *NeuroReport*, 20(4), 408–413.

#### Letters to the Editor

1. Bidelman, G. M. (2025). Reply to Manley: Is there more to cochlear tuning than meets the ear? *Hearing Research*. [Letter to the Editor]. 459(09218), 1-4.
2. Bidelman, G. M. & Mankel, K. (2019). Reply to Schellenberg: Is there more to auditory plasticity than meets the ear? *Proceedings of National Academy of Sciences of the United States of America* [Letter to the Editor], 116(8), 2785-2786.

#### Preprints (non-peer reviewed; \*predoc/\*\*postdoc trainee 1<sup>st</sup> author)

1. \*MacLean, J. A., Drobny, E., Rizzi, R., & Bidelman, G. M. (2024). Musicianship modulates cortical (but not brainstem) effects of attention on processing musical triads. *bioRxiv* [preprint]. <https://doi.org/10.1101/2024.09.21.614251>
2. Bidelman, G. M., York, A., & Pearson, C. (2024). Neural correlates of phonetic categorization under auditory (phoneme) and visual (grapheme) modalities. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2024.07.24.604940>
3. \*MacLean, J. A., Stirn, J. R., & Bidelman, G. M. (2024). Auditory-motor entrainment and listening experience shape the perceptual learning of concurrent speech. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2024.07.18.604167>
4. \*Rizzi, R. & Bidelman, G. M. (2024). Functional benefits of continuous vs. categorical listening strategies on the neural encoding and perception of noise-degraded speech. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2024.05.15.594387>
5. Bidelman, G. M., Bernard, F., & Skubic, K. (2024). Hearing in categories aids speech streaming at the “cocktail party”. *bioRxiv* [preprint]. <https://doi.org/10.1101/2024.04.03.587795>
6. \*He, D., Buder, E. H., & Bidelman, G. M. (2023). Cross-linguistic and acoustic-driven effects on multiscale neural synchrony to stress rhythms. *bioRxiv* [preprint]. <https://doi.org/10.1101/2023.12.04.570012>
7. Bidelman, G. M., Sisson, A., Rizzi, R., MacLean, J., & Baer, K. (2023). Myogenic artifacts masquerade as neuroplasticity in the auditory frequency-following response (FFR). *bioRxiv* [preprint]. doi: 10.1101/2023.10.27.564446
8. \*Brown, J. A. & Bidelman, G. M. (2023). Attention, musicality, and familiarity shape cortical speech tracking at the musical cocktail party. *bioRxiv* [preprint]. doi: 10.1101/2023.10.28.562773
9. \*MacLean, J. A., Stirn, J. R., Sisson, A. E., & Bidelman, G. M. (2023). Short- and long-term experience-dependent neuroplasticity interact during the perceptual learning of concurrent speech. *bioRxiv* [preprint]. <https://doi.org/10.1101/2023.09.26.559640>
10. Alain, C., Goeke, K., Shen, D., Bidelman, G. M., Bernstein, L. J., & Snyder, J. S. (2023). Neural Alpha oscillations index context-driven perception of ambiguous vowel sequences. *SSRN* [preprint]. <http://dx.doi.org/10.2139/ssrn.4450376>

11. \*Rizzi, R. & Bidelman, G. M. (2023). Duplex perception reveals brainstem auditory representations are modulated by listeners' ongoing percept for speech. *bioRxiv* [preprint]. <https://doi.org/10.1101/2023.05.09.540018>
12. \*Moinuddin, K. A., Havugimana, F., Al-Fahad, R., Bidelman, G., & Yeasin, M. (2022). Unraveling spatial-spectral dynamics of speech categorization speed using convolutional neural network. *bioRxiv* [preprint]. <https://doi.org/10.1101/2022.11.21.517434>
13. \*Momtaz, S. & Bidelman, G. M. (2022). Effects of stimulus rate and periodicity on auditory cortical entrainment to continuous sounds. *bioRxiv* [preprint]. <https://doi.org/10.1101/2022.09.04.506557>
14. \*\*Lai, J. & Bidelman, G. M. (2022). Cochlear summing potentials to paired-clicks predict speech-in-noise perception and hearing acuity. *bioRxiv* [preprint]. <https://doi.org/10.1101/2022.07.31.502232>
15. \*Carter, J. & Bidelman, G. M. (2022). Perceptual warping exposes categorical representations for speech in human brainstem responses. *bioRxiv* [preprint]. <https://doi.org/10.1101/2022.07.13.499914>
16. \*Brown, J. A., & Bidelman, G. M. (2022). Familiarity of background music modulates the cortical tracking of target speech at the cocktail party. *bioRxiv* [preprint]. doi: 10.1101/2022.07.14.500126
17. \*\*Lai, J., Alain C., & Bidelman, G. M. (2022). Age-related hearing loss alters real-time dynamics of auditory cortical-brainstem coding during speech perception. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2022.06.03.494743>.
18. \*\*Lai, J., Price C. N., & Bidelman, G. M. (2022). Brainstem speech encoding is dynamically shaped online by fluctuations in cortical  $\alpha$  state. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2022.04.11.487894>
19. Bidelman, G. M. & Carter, J. (2021). Continuous dynamics in behavior reveal perceptual nonlinearities aid speech categorization in noise. *PsyArXiv* [preprint]. <https://doi.org/10.31234/osf.io/qd3nu>
20. \*Carter, J. A., Buder, E. H., & Bidelman, G. M. (2021). Nonlinear dynamics in auditory cortical activity reveal the neural basis of perceptual warping in speech categorization. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2021.12.07.470603>
21. Al-Fahad, R., Yeasin, M., Moinuddin, K. A., & Bidelman, G. M. (2021). Micro-state-based neural decoding of speech categorization using Bayesian non-parametrics. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2021.11.17.469011>
22. \*Momtaz, S., Moncrieff, D., Ray, M.A., & Bidelman, G. M. (2021). Children with amblyaudia show less flexibility in auditory cortical entrainment to periodic non-speech sounds. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2021.09.08.459520>
23. \*Mankel, K. Shrestha, U., Tipirneni-Sajja, A., & Bidelman, G.M. (2021). Functional plasticity coupled with structural predispositions in auditory cortex shape successful music category learning. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2021.05.12.443818>.
24. Price, C. N. & Bidelman, G. M. (2021). Musical experience partially counteracts temporal speech processing deficits in mild cognitive impairment. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2021.04.21.440718>
25. \*Mankel, K., Pavlik, P., & Bidelman, G. M. (2020). Single-trial neural dynamics influence auditory category learning. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.12.10.420091>
26. \*Momtaz, S., Moncrieff, D., & Bidelman, G. M. (2020). Dichotic listening deficits in amblyaudia are characterized by aberrant neural oscillations in auditory cortex. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.11.27.401604>
27. \*Price, C. N. & Bidelman, G. M. (2020). Attention reinforces human corticofugal system to aid speech perception in noise. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.10.22.351494>
28. \*Mahmud, S., Yeasin, M., & Bidelman, G. M. (2020). Speech categorization is better described by induced rather than evoked neural activity. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.10.20.347526>

29. \*Carter, J. & Bidelman, G. M. (2020). Auditory cortex is susceptible to lexical influence as revealed by informational vs. energetic masking of speech categorization. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.10.20.347724>
30. Bidelman, G. M., Pearson, C., & Harrison, A. (2020). Lexical influences on categorical speech perception are driven by a temporoparietal circuit. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.08.11.246793>
31. Bidelman, G. M., Brown, J. A., & Bashivan, P. (2020). Auditory cortex supports verbal working memory capacity. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.08.05.237727>
32. \*Mahmud, S., Yeasin, M., & Bidelman, G. M. (2020). Data-driven machine learning models for decoding speech categorization from evoked brain responses. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.08.03.234997>
33. Bidelman, G. M. & Momtaz, S. (2020). Subcortical sources drive the relation between frequency-following responses (FFRs) and speech in noise perception. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/2020.03.29.014233>
34. \*Mahmud, S., Ahmed, F., Al-Fahad, R., Moinuddin, K. A., Yeasin, M., Alain, C., & Bidelman, G. M. (2019). Decoding age-related changes in the spatiotemporal neural processing of speech using machine learning. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/786566>
35. \*Al-Fahad, R., Yeasin, M., & Bidelman, G. M. (2019). Unsupervised decoding of single-trial EEG reveals unique states of functional brain connectivity that drive rapid speech categorization decisions. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/686048>
36. Bidelman, G. M. & Walker, B. (2019). Plasticity in auditory categorization is supported by differential engagement of the auditory-linguistic network. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/663799>
37. Bidelman, G. M., Bush, L. C., & Boudreaux, A. M. (2019). The categorical neural organization of speech aids its perception in noise. *bioRxiv* [preprint]. doi: <https://doi.org/10.1101/652842>
38. Bidelman, G. M., Price, C. N., Shen, D., Arnott, S., & Alain, C. (2019). Afferent-efferent connectivity between auditory brainstem and cortex accounts for poorer speech-in-noise comprehension in older adults. *bioRxiv* [preprint], doi: <https://doi.org/10.1101/568840>.
39. Bidelman, G. M. & McElwain, C. (2017). Objective detection of auditory steady-state responses based on mutual information: Receiver operating characteristics and validation across modulation rates and levels. *PeerJ Preprints* [preprint], 5: e3399v1.

#### **Book chapters and conference proceedings (peer reviewed; \*student first author)**

1. Bidelman, G. M., Brown, J. A., Rizzi, R., MacLean, J. (to appear, May 2025). Neuroplastic effects of music expertise on speech-language processing. In E. Andrews (Eds.), *The Cambridge Handbook of Language and Brain*. Cambridge, UK: Cambridge University Press.
2. Bidelman, G. M. (2025). Phonemes, tones, and pitch. In D. Sammler (Ed.), *The Oxford Handbook of Language and Music*. Oxford, UK: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780192894700.013.0009>
3. Mahmud, S., Hasan, N., Yeasin, M., & Bidelman, G. M. (2024). Decoding speech categorization using microstate cortical EEG signals and machine learning. *Proceedings of the 2024 IEEE Signal Processing in Medicine and Biology Symposium (IEEE SPMB 2024)*, Philadelphia, Pennsylvania, Dec 7, 2024.
4. \*Mahmud, S., Ahmed, F., Yeasin, M., & Bidelman, G. M. (2020). Decoding categorical speech perception from evoked brain responses. *Proceedings of the IEEE TENSYP 2020*, Dhaka, Bangladesh, June 5-7, 2020.
5. \*Mahmud, S., Ahmed, F., Yeasin, M., Alain, C., & Bidelman, G. M. (2020). Multivariate models for decoding hearing impairment using EEG gamma-band power spectral density. *Proceedings of the International Joint Conference on Neural Networks (IJCNN 2020)*, Glasgow, Scotland July 19-24, 2020.
6. \*Cao, M., Pavlik, P., & Bidelman, G. M. (2019). Incorporating prior practice difficulty into performance factor analysis to model Mandarin tone learning. *Proceedings of 12<sup>th</sup> International Conference on Educational Data Mining (EDM)*, Montreal, Canada, July 2-5, 2019.

7. \*Mahmud, S., Yeasin, M., Shen, D., Arnott, S., Alain, C., & Bidelman, G. M. (2018). What brain connectivity patterns from EEG tell us about hearing loss: A graph theoretic approach. *Proceedings of the 10<sup>th</sup> International Conference on Electrical and Computer Engineering (ICECE 2018)*, Dhaka, Bangladesh, Dec 20–22, 2018, pp. 205–208.
8. \*Khatun, S., Morshed, B. I., & Bidelman, G. M. (2018). Single channel EEG based score generation to monitor the severity and progression of mild cognitive impairment. *IEEE Proceedings of the 18<sup>th</sup> Annual International Conference on Electro-Information Technology (EIT)*, Rochester, MI, May 3-5, 2018, pp. 882–886.
9. \*Khatun, S., Morshed, B. I., & Bidelman, G. M. (2017). Single channel time-frequency features to detect mild cognitive impairment. *Proceedings of the IEEE International Symposium on Medical Measurement and Applications (IEEE MeMeA 2017)*, Rochester, MN, May 7–10, 2017, pp. 437-442.
10. \*Bashivan, P., Bidelman, G. M., & Yeasin, M. (2017). Temporal progression in functional connectivity determines individual differences in working memory capacity. *Proceedings of the International Joint Conference on Neural Networks (IJCNN 2017)*, Anchorage, AK, May 14–19, 2017, pp. 2943–2949.
11. Bidelman, G. M. (2017). Communicating in challenging environments: Noise and reverberation. In N. Kraus, S. Anderson, T. White-Schwoch, R. R. Fay & A. N. Popper (Eds.), *Springer Handbook of Auditory Research: The frequency-following response: A window into human communication*. New York, N.Y.: Springer Nature.
12. Walker, B.S. & Bidelman, G.M. (2016). Stimulus familiarity and attentional effects on the neural organization of auditory categorical perception. *Proceedings of the 18th World Congress of Psychophysiology (IOP2016) of the International Organization of Psychophysiology (IOP)*, Havana, Cuba, August 31-Sept. 4, 2016.
13. \*Bashivan, P., Yeasin, M., & Bidelman, G. M. (2016). Temporal progression in functional connectivity determines individual differences in working memory capacity. *Proceedings of the 7<sup>th</sup> Annual IEEE International Conference on Cognitive InfoCommunications (IEEE CogInfoCom2016)*, Wroclaw, Poland, October 16–18, 2016.
14. \*Mahajan, R., Morshed, B. I., & Bidelman, G. M. (2016). Design and validation of a wearable “DRL-less” EEG using a novel fully-reconfigurable architecture. *Proceedings of the 38<sup>th</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (IEEE EMPC 2016)*, Orlando, FL, August 16–20, 2016, pp. 4999-5002.
15. \*Bashivan, P., Bidelman, G. M., & Yeasin, M. (2015). Single trial prediction of normal and excessive cognitive load through EEG feature fusion. *Proceedings on the IEEE Signal Processing in Medicine and Biology Symposium (IEEE SPMB)*, Philadelphia, PA, December 12–13, 2015.
16. \*Feng, S. & Bidelman, G. M. (2015). Music listening and song familiarity modulate mind wandering and behavioral success during lexical processing. *Annual Meeting of the Cognitive Science Society (CogSci 2015)*, Pasadena, CA, July 22- 25, 2015.
17. \*Mahajan, R., Majmudar, C. A., Khatun, S., Morshed, B. I., & Bidelman, G. M. (2014). NeuroMonitor Ambulatory EEG Device: Comparative Analysis and Its Application for Cognitive Load Assessment. *Proceedings of the IEEE Healthcare Innovations and Point-of-Care Technologies Conference (IEEE HICPT'14)*, Seattle, WA, October 7–10, 2014, pp. 133–136.
18. \*Bashivan, P., Bidelman, G. M., & Yeasin, M. (2014). Modulation of brain connectivity by cognitive load in the working memory network. *Proceedings on the IEEE Symposium Series on Computational Intelligence, Cognitive Algorithms, Mind, and BRAIN (IEEE CCMB)*, Orlando, FL, December 9–12, 2014, pp. 127-133.
19. \*Bashivan, P., Bidelman, G. M., & Yeasin, M. (2013). Neural correlates of visual working memory load through unsupervised spatial filtering of EEG. *Proceedings of IEEE Machine Learning and Interpretation in Neuroimaging (MLINI'13)*, Lake Tahoe, NV, December 9–10, 2013.
20. Pavlik, P., Hua, H., Williams, J., & Bidelman, G. M. (2013). Modeling the effect of spacing on musical interval training. *Proceedings of 6<sup>th</sup> International Conference on Educational Data Mining (EDM)*, Memphis, TN, July 6–9, 2013.

21. Gandour, J., Krishnan, A., & Bidelman, G. M. (2010). Neural substrates of lexical tone as revealed at different stages of cortical and subcortical processing. *Proceedings of the 7<sup>th</sup> International Conference on Cognitive Science* (pp. 32-33). Beijing, China: University of Science and Technology of China Press.

#### Conference abstracts (posters and talks; \*student presenter)

1. Seigel, S., Stirn, J., Bidelman, G. M. (2025). Structural tractography of the arcuate fasciculus and speech-in-noise perception. Poster presented at the *88<sup>th</sup> Annual Indiana Speech and Hearing Association (IHS) Convention*, Indianapolis, IN, March 12-14, 2025.
2. Cheng, A., Baron, R., Chai, F., Reyes, K., Bidelman, G. M., Shafer, V. L., & Yu, Y. (2025). The neurophysiology of multi-feature music processing in children with different language backgrounds. Poster presented at the *15<sup>th</sup> International Symposium on Bilingualism (ISB15)*, San Sebastian, Spain, June 9-13, 2025.
3. \*MacLean, J. A., Zhou, M., & Bidelman, G. M. (2025). Predictable and periodic rhythmic cues facilitate concurrent speech perception at nominal speech rate. Poster presented at the *48<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 22-26, 2025.
4. \*MacLean, J. A., Drobny, E., Rizzi, R., & Bidelman, G. M. (2025). Musical training modulates cortical effects of attention in processing of musical triads. Poster presented at the *48<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 22-26, 2025.
5. \*MacLean, J. A., Stirn, J., & Bidelman, G. M. (2025). Auditory-motor entrainment and listening experience shape the perceptual learning of concurrent speech. Poster presented at the *48<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 22-26, 2025.
6. \*Rizzi, R., Lewis, E., & Bidelman, G. M. (2025). Task induced changes in listening strategy modulate cortical and subcortical speech processing. Poster presented at the *48<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 22-26, 2025.
7. Bidelman, G. M., Stirn, J., Shin C., Lewis, E., Zhou, M., Rizzi, R., & MacLean, J. (2025). Structural integrity of the auditory-language brain networks varies with cognitive status and accounts for speech-in-noise deficits in older adults. Talk presented at the *48<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 22-26, 2025.
8. \*MacLean, J. A., Stirn, J., & Bidelman, G. M. (2024). Auditory-motor entrainment and listening experience shape the perceptual learning of concurrent speech. Poster presented at the *Society for Neuroscience (SfN)*, Chicago, IL, October 5-9, 2024.
9. Slaney, M., Kuo, E., Bidelman, G., & Maoiléidigh, D. O. (2024). The SNR of ABR Signals. Talk presented at the *Virtual Conference on Computational Audiology 2024 (VCCA2024)*, June 20-21, 2024.
10. Bidelman, G. M. (2024). "Myogenic artifacts distort neuroplasticity in the auditory frequency-following response (FFR)," *5<sup>th</sup> Frequency-Following Response Workshop (FFR2024)*, Chicago, IL, June 12-14, 2024.
11. \*MacLean, J. A., Stirn, J., & Bidelman, G. M. (2024). Auditory-motor entrainment and listening experience shape the perceptual learning of concurrent speech. Poster presented at the *Society for Music Perception and Cognition (SMPC 24)*, Banff, Alberta, Canada, Aug. 25-28, 2024.
12. \*MacLean, J. A., Drobny, E., Rizzi, R., & Bidelman, G. M. (2024). Musical training modulates cortical effects of attention in processing of musical triads. Poster presented at the *5<sup>th</sup> Frequency-Following Response Workshop (FFR2024)*, Chicago, IL, June 12-14, 2024.
13. \*Rizzi, R. & Bidelman, G. M. (2024). Duplex perception reveals brainstem auditory representations are modulated by listeners' ongoing percept for speech. Talk presented at the *5<sup>th</sup> Frequency-Following Response Workshop (FFR2024)*, Chicago, IL, June 12-14, 2024.
14. Cheng, A., Rodgers, M., Reyes, K., Chai, F., Gill, B., Bidelman, G. M., Shafer, V. L., & Yu, Y. (2024). The neurophysiology of multi-feature music processing in children with different language backgrounds. Poster presented at the *30<sup>th</sup> Annual Meeting of the Cognitive Neuroscience Society*, Toronto, Canada, April 13-16, 2024.

15. Diaz, A., Guo, S., Hill, A., Shafer, V. L., Bidelman, G. M., & Yu, Y. (2024). The neural development of Mandarin lexical tone processing in bilingual English-Mandarin children. Poster presented at the *30<sup>th</sup> Annual Meeting of the Cognitive Neuroscience Society*, Toronto, Canada, April 13-16, 2024.
16. \*Brown, J. A. & Bidelman, G. M. (2024). Listening at the musical cocktail party: Musicality and familiarity impact cortical speech tracking in background music. Poster presented at the *47<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Anaheim, CA, Feb. 3-7, 2024.
17. \*Rizzi, R. & Bidelman, G. M. (2024). Examining the benefits of categorical vs. continuous listening strategies on speech in noise perception. Poster presented at the *47<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Anaheim, CA, Feb. 3-7, 2024.
18. \*MacLean, J. A., Stirn, J. R., Sisson, A. E., & Bidelman, G. M. (2024). Short- and long-term experience-dependent neuroplasticity interact during the perceptual learning of concurrent speech. Poster presented at the *47<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Anaheim, CA, Feb. 3-7, 2024.
19. Bidelman, G. M., Sisson, A., Rizzi, R., MacLean, J., & Baer, K. (2024). Myogenic artifacts masquerade as neuroplasticity in the auditory frequency-following response (FFR). Poster presented at the *47<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Anaheim, CA, Feb. 3-7, 2024.
20. \*MacLean, J. A., Stirn, J. R., Sisson, A. E., & Bidelman, G. M. (2023). Short- and long-term experience-dependent neuroplasticity interact during the perceptual learning of concurrent speech. Poster presented at the *Big 10 Neuroscience Annual Meeting*, Indianapolis, IN, USA, June 15-16, 2023.
21. Guo, S., Diaz, A., Shafer, V., Bidelman, G., Jackson, T., & Yu, Y. (2023). The neurophysiological responses of music processing in bilingual teenagers. Poster presented at the *184<sup>th</sup> Meeting of the Acoustical Society of America (ASA)*, Chicago, IL, May 8-12, 2023.
22. \*Momtaz, S. & Bidelman, G. M. (2023). Effects of stimulus rate and periodicity on auditory cortical entrainment and their relation to speech rhythms. Poster presented at the *46<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 11-15, 2023.
23. Bidelman, G. M. & Carter, J. (2023). Perceptual warping exposes categorical representations for speech in human brainstem response. Talk presented at the *46<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 11-15, 2023.
24. Bidelman, G. M. & Lai, J. (2023). Brainstem speech encoding is dynamically shaped online by fluctuations in cortical  $\alpha$  state. Poster presented at the *46<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 11-15, 2023.
25. \*Brown, J. A. & Bidelman, G. M. (2023). Selective attention and familiarity at the musical cocktail party. Talk presented at the *46<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 11-15, 2023.
26. \*Rizzi, R. & Bidelman, G. M. (2023). Duplex perception reveals brainstem auditory representations are modulated by listeners' ongoing percept for speech. Poster presented at the *46<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Orlando, FL, Feb. 11-15, 2023.
27. \*He, D., Buder, E. H., & Bidelman, G. M. (2022). Rate synchronization reveals a corresponding syllable rhythm in brain oscillations and speech productions. Poster presented at the *14<sup>th</sup> Annual Meeting of the Society for the Neurobiology of Language (SNL 22)*, Philadelphia, PA, Oct. 6-8, 2022.
28. \*Brown, J. A. & Bidelman, G. M. (2022). The familiarity of background music modulates the cortical tracking of target speech at the cocktail party. Poster presented at the *Society for Music Perception and Cognition (SMPC 22)*, Portland, OR, Aug. 4-7, 2022.
29. \*Momtaz, S., Moncrieff, D., Ray, M.A., & Bidelman, G. M. (2022). Children with amblyaudia show less flexibility in auditory cortical entrainment to periodic non-speech sounds. Poster presented at the *182<sup>nd</sup> Meeting of the Acoustical Society of America*, Denver, CO, May 24, 2022.
30. \*Huber, R., Johnson, J., & Bidelman, G. M. (2022). Decision-making factors impacting sound acceptability judgements by young typical hearers. Poster presented at *Annual Meeting of the American Auditory Society (AAS)*, Scottsdale, AZ, Feb. 24-26, 2022.

31. \*Momtaz, S. & Bidelman, G. M. (2022). Effects of stimulus rate and periodicity on auditory cortical entrainment and their relation to speech rhythms. Poster presented at *Annual Meeting of the American Auditory Society (AAS)*, Scottsdale AZ, Feb. 24-26, 2022.
32. \*Carter, J. A. & Bidelman, G. M. (2022). Nonlinear dynamics in auditory cortical activity reveal the neural basis of perceptual warping in speech categorization. Poster presented at the *45th Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, Feb. 5-9, 2022.
33. \*Momtaz, S., Moncrieff, D., Ray, M.A., & Bidelman, G. M. (2022). Children with amblyaudia show less flexibility in auditory cortical entrainment to periodic non-speech sounds. Poster presented at the *45th Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, Feb. 5-9, 2022.
34. \*Brown, J. A. & Bidelman, G. M. (2022). The familiarity of background music modulates the cortical tracking of target speech at the cocktail party. Poster presented at the *45th Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, Feb. 5-9, 2022.
35. Price, C. N. & Bidelman, G. M. (2021). Musical experience partially counteracts temporal speech processing deficits in putative mild cognitive impairment: A pilot study. Talk presented at the *International Symposium on Auditory and Audiological Research (ISAAAR): The Auditory System throughout Life – Models, Mechanisms, and Interventions*, [Virtual], August 23-27, 2021.
36. \*Brown, J. A. & Bidelman, G. M. (2021). Song properties and familiarity affect speech recognition in musical noise. Talk presented at the *16th International Conference on Music Perception and Cognition (ICMPC)*, University of Sheffield, UK, July 28-31, 2021.
37. \*Momtaz, S., Moncrieff, D., & Bidelman, G. M. (2021). Dichotic listening deficits in amblyaudia are characterized by aberrant neural oscillations in auditory cortex. Presentation at the *XXVII Biennial Symposium of the International Evoked Response Audiometry Study Group (IERASG)*, Cologne, Germany [Virtual], June 20-24, 2021.
38. Iannaccone, A., Brewer, C. C., Duncan, J. L., Cheng, P., Maguire, M. G., Audo, I., Ayala, A. R., Bernstein, P., Bidelman, G., Cheetham, J. K., Doty, R., Durham, T. A., Hufnagel, R. B., Myers, M., Wadih Zein for the Foundation Fighting Blindness Consortium Investigator Group. (2021). Auditory and olfactory findings from the Rate of Progression of USH2A-related Retinal Degeneration (RUSH2A). Annual meeting of the *Association for Research in Vision and Ophthalmology (ARVO)*, Virtual Meeting, May 1-7, 2021.
39. \*Momtaz, S., Moncrieff, D., & Bidelman, G. M. (2021). Dichotic listening deficits in amblyaudia are characterized by aberrant neural oscillations in auditory cortex. Poster presented at the *Annual Meeting of the Cognitive Neuroscience Society (CNS)*, Virtual Meeting, March 13-16, 2021.
40. \*Momtaz, S., Moncrieff, D., & Bidelman, G. M. (2021). Dichotic listening deficits in amblyaudia are characterized by aberrant neural oscillations in auditory cortex. Poster presented at the *Annual Meeting of the American Auditory Society (AAS)*, Virtual Meeting, March 4-6, 2021.
41. \*Shukla, B. & Bidelman, G. M. (2021). Enhanced brainstem phase-locking in low-level noise reveals stochastic resonance in the frequency-following response (FFR). Poster presented at the *44th Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Virtual Meeting, Feb. 20-24, 2021.
42. Price, C. N. & Bidelman, G. M. (2021). Attentional reinforcement of human corticofugal system aids speech perception in noise. Poster presented at the *44th Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Virtual Meeting, February 20-24, 2021.
43. \*Brown, J. A. & Bidelman, G. M. (2021). Song properties and familiarity affect speech recognition in musical noise. Talk presented at the *44th Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Virtual Meeting, February 20-24, 2021.
44. \*Carter, J. A. & Bidelman, G. M. (2021). Auditory cortex is susceptible to lexical influence as revealed by informational vs. energetic masking of speech categorization. Poster presented at the *44th Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Virtual Meeting, Feb. 20-24, 2021.
45. \*Momtaz, S., Moncrieff, D., & Bidelman, G. M. (2021). Dichotic listening deficits in amblyaudia are characterized by aberrant neural oscillations in auditory cortex. Talk presented at the *44th Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Virtual Meeting, Feb. 20-24, 2021.



46. \*Mankel, K. & Bidelman, G. M. (2021). Neural correlates of successful auditory category learning. Poster presented at the *44<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Virtual Meeting, February 20-24, 2021.
47. \*Mankel, K. & Bidelman, G. M. (2020). Neural correlates of successful auditory category learning. Poster presented at *Advances and Perspectives in Auditory Neuroscience (APAN 2020)*, Virtual conference, October 22-23, 2020.
48. Price, C. N. & Bidelman, G. M. (2020). Attention reinforces hierarchical speech-in-noise processing by mitigating noise effects. Poster presented at *Advances and Perspectives in Auditory Neuroscience (APAN 2020)*, Virtual conference, October 22-23, 2020.
49. Lewis, G., Pearson, C., Harrison, A., & Bidelman, G. M. (2020). Neural correlates of context-dependent lexical bias (Ganong effect) on categorical speech perception. Poster presented at the *43<sup>rd</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, Jan. 24-29, 2020.
50. Lewis, G., Pearson, C., Harrison, A., & Bidelman, G. M. (2020). Neural correlates of speech categorization in auditory and visual modalities. Poster presented at the *43<sup>rd</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, January 24-29, 2020.
51. Lewis, G. & Bidelman, G. M. (2020). Autonomic nervous system correlates of speech categorization revealed through pupillometry. Poster presented at the *43<sup>rd</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, January 24-29, 2020.
52. Bidelman, G. M. & Walker, B. (2020). Plasticity in auditory categorization is supported by differential engagement of the auditory-linguistic network. Poster presented at the *43<sup>rd</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, January 24-29, 2020.
53. Bidelman, G. M. & Yoo, J. (2020). Musicians Show Improved Speech Segregation In A Competitive, Multitalker Cocktail Party Scenario. Poster presented at the *43<sup>rd</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, January 24-29, 2020.
54. \*Mankel, K. & Bidelman, G. M. (2020). Auditory categorical learning is shaped by inherent musical listening skills. Poster presented at the *43<sup>rd</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, January 24-29, 2020.
55. \*Price, C. N., Alain, C. & Bidelman, G. M. (2020). Auditory-frontal channeling in  $\alpha$  and  $\beta$  bands is altered by age-related hearing loss and relates to speech perception in noise. Poster presented at the *43<sup>rd</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Jose, CA, January 24-29, 2020.
56. \*Mankel, K. & Bidelman, G. M. (2019). Auditory categorical learning is shaped by inherent musical listening skills. Poster presented at the Bi-annual Meeting of the *Society for Music Perception and Cognition (SMPC 19)*, New York, NY, Aug. 5-7, 2019.
57. \*Peeples, A. A., \*Rivers-Allen, K., & Bidelman, G. M. (2019). ABR markers of hidden hearing loss. Poster presented at the *49<sup>th</sup> Annual Mid-South Conference on Communicative Disorders*, Memphis, TN, Feb. 21-22, 2019.
58. \*Barber, J., \*Mankel, K., & Bidelman, G. M. (2019). Individual differences in listening skills modulate the auditory categorical processing of speech and music. Poster presented at the *49<sup>th</sup> Annual Mid-South Conference on Communicative Disorders*, Memphis, TN, Feb. 21-22, 2019.
59. \*Bush, L. C., \*Boudreaux, A. M., & Bidelman, G. M. (2019). The impact of acoustic interference and listening effort on auditory speech categorization. Poster presented at the *49<sup>th</sup> Annual Mid-South Conference on Communicative Disorders*, Memphis, TN, Feb. 21-22, 2019.
60. \*Price, C. N., Bidelman, G. M., Shen, D., Arnott, S., & Alain, C. (2019). Afferent-efferent connectivity between auditory brainstem and cortex accounts for poorer speech-in-noise comprehension in older adults. Poster presented at the *49<sup>th</sup> Annual Mid-South Conference on Communicative Disorders*, Memphis, TN, Feb. 21-22, 2019.
61. \*Yoo, J. & Bidelman, G. M. (2019). Linguistic, perceptual, and cognitive factors underlying musicians' benefits in noise-degraded speech perception. Poster presented at the *49<sup>th</sup> Annual Mid-South Conference on Communicative Disorders*, Memphis, TN, Feb. 21-22, 2019.

62. \*Price, C. N., Bidelman, G. M., Shen, D., Arnott, S., & Alain, C. (2019). Afferent-efferent connectivity between auditory brainstem and cortex accounts for poorer speech-in-noise comprehension in older adults. Poster presented at the *42<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 9-13, 2019.
63. Bidelman, G. M. (2019). Neural correlates of enhanced audiovisual processing in the bilingual brain. Poster presented at the *42<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 9-13, 2019.
64. Bidelman, G. M., Bush, L., Boudreaux, A., & Sigley, L. (2019). Audiovisual cues influence the categorical perception of clear and degraded speech. Poster presented at the *42<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 9-13, 2019.
65. \*Yoo, J. & Bidelman, G. M. (2019). Linguistic, perceptual, and cognitive factors underlying musicians' benefits in noise-degraded speech perception. Poster presented at the *42<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 9-13, 2019.
66. \*Mankel, K., Barber, J., & Bidelman, G. M. (2019). Individual differences in listening skills modulate the auditory categorical processing of speech and music. Poster presented at the *42<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 9-13, 2019.
67. \*Khatun, S., Morshed, B. I., & Bidelman, G. M. (2018). Regression based automated scoring technique of mild cognitive impairment (MCI) severity using single channel EEG measures with auditory stimulus. *Proceedings of the 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'18)*, Honolulu, HI, July 17-21, 2018.
68. \*Yoo, J. & Bidelman, G. M. (2018). Linguistic, perceptual, and cognitive factors underlying musicians' benefits in noise-degraded speech perception. Poster presented at the *17<sup>th</sup> Annual Auditory Perception, Cognition and Action Meeting (APCAM 2018)*, New Orleans, LA, November 15, 2018.
69. Lee, S., Mendel, L.L., & Bidelman, G. M. (2018). Predicting speech recognition using the speech intelligibility index (SII) for cochlear implantees. Poster presented at the *Annual American Academy of Audiology Convention (AAA 2018)*, Nashville, TN, April 18-21, 2018.
70. \*Brown, B., Mankel, K., & Bidelman, G. M. (2018). Behavioral and physiological pupil responses reveal multimodal (audiovisual) noise differentially challenges speech recognition. Poster presented at the *48<sup>th</sup> Annual Mid-South Conference on Communicative Disorders*, Memphis, TN, Feb. 22-23, 2018.
71. \*Powers, L. & Bidelman, G. M. (2018). Response properties of the human frequency-following response (FFR) to tones and speech: Level dependence, adaptation, and phase-locking limits. Poster presented at the *48<sup>th</sup> Annual Mid-South Conference on Communicative Disorders*, Memphis, TN, Feb. 22-23, 2018.
72. \*Davis, M.K. & Bidelman, G. M. (2018). Subcortical and cortical neural encoding of speech is differentially challenged by noise and reverberation. Poster presented at the *48<sup>th</sup> Annual Mid-South Conference on Communicative Disorders*, Memphis, TN, February 22-23, 2018.
73. \*Yellamsetty, A. & Bidelman, G. M. (2018). Dissociable mechanisms of concurrent speech segregation in noise at subcortical levels. Poster presented at the *Annual Meeting of the American Auditory Society (AAS)*, Scottsdale, AZ, March 1-3, 2018.
74. \*Yellamsetty, A. & Bidelman, G. M. (2018). Low- and high-frequency cortical brain oscillations reflect dissociable mechanisms of concurrent speech segregation in noise. Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, Feb. 9-14, 2018.
75. Bidelman, G. M. & Heath, S. T. (2018). Enhanced temporal binding of audiovisual information in the bilingual brain. Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 9-14, 2018.
76. Bidelman, G. M., Brown, B., Mankel, K. (2018). Behavioral and physiological pupil responses reveal multimodal (audiovisual) noise differentially challenges speech recognition. Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 9-14, 2018.
77. Bidelman, G. M. & Powers, L. (2018). Response properties of the human frequency-following response (FFR) to tones and speech: Level dependence, adaptation, and phase-locking limits. Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA,

February 9-14, 2018.

78. Bidelman, G. M. (2018). Relative contributions of auditory nerve, brainstem, and cortical generators to the auditory frequency-following response revealed by EEG. Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, Feb. 9-14, 2018.
79. Bidelman, G. M., Knapp, J., Heitzmann, V. R., & Bhagat, S. P. (2018). Brainstem correlates of cochlear nonlinearity measured via frequency-following responses (FFRs): A neural marker of “hidden hearing loss” or individual variation in central auditory processing? Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, Feb. 9-14, 2018.
80. Bidelman, G. M., Howell, M., & Davis, M.K. (2018). Subcortical and cortical neural encoding of speech is differentially challenged by noise and reverberation. Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 9-14, 2018.
81. \*Mankel, K. & Bidelman, G. M. (2018). Nonmusicians with innate musicality exhibit enhanced subcortical encoding of speech. Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 9-14, 2018.
82. Bidelman, G. M. & McElwain, C. (2018). Objective detection of auditory steady-state responses based on mutual information: Receiver operating characteristics and validation across modulation rates and levels. Poster presented at the *41<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 9-14, 2018.
83. \*Yoo, H., Bidelman, G. M., Buder, E., van Mersbergen, M., & Oller, K. (2017). Differentiating infant cry from non-cry vocalizations based on negativity perception and acoustic features. Poster presented at the *173<sup>d</sup> Meeting of the Acoustical Society of America*, Boston, MA, June 25-29, 2017.
84. Chung, W.-L., Jarmulowicz, L., & Bidelman, G. M. (2017). Amplitude envelope onset, native prosodic and phonological awareness, and nonnative word learning. Paper presented as part of the Symposium on The Secret Life of Suprasegmentals at the *24<sup>th</sup> Annual Meeting of the Society for the Scientific Study of Reading*, Halifax, Nova Scotia, Canada, July 12–15, 2017.
85. \*Yellamsetty, A. & Bidelman, G. M. (2017). Induced cortical brain oscillations underlying concurrent speech segregation in noise. Poster presented at the *Annual Meeting of the American Auditory Society (AAS)*, Scottsdale, AZ, March 2–4, 2017.
86. Bidelman, G. M., Lowther, J., Tak, S., & Alain, C. (2017). Mild cognitive impairment is characterized by deficient hierarchy of speech coding between auditory brainstem and cortex. Poster presented at the *40<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 11-15, 2017.
87. Bidelman, G. M., Fehrenbach, A., & Yellamsetty, A. (2017). Noise and pitch interact during the cortical segregation of concurrent speech sounds. Poster presented at the *40<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 11-15, 2017.
88. Bidelman, G. M. & Lee, S. (2017). Objective identification of simulated cochlear implant settings in normal-hearing listeners via auditory cortical evoked potentials. Poster presented at the *40<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, Feb. 11-15, 2017.
89. Bidelman, G. M., Pousson, M., Dugas, C., & Fehrenbach, A. (2017). Test-retest reliability across brainstem and cortical classes of the auditory evoked potentials. Poster presented at the *40<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, Feb. 11-15, 2017.
90. Bidelman, G. M., Schneider, A., Heitzmann, V., & Bhagat, S. (2017). Musicianship enhances monaural and binaural efferent gain control to the cochlea. Poster presented at the *40<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 11-15, 2017.
91. Bidelman, G. M. (2017). Musicians have enhanced audiovisual multisensory binding: Experience-dependent effects in the double-flash illusion. Poster presented at the *40<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 11-15, 2017.
92. \*Yoo, H. & Bidelman, G. M. (2016). Nonparent perception of infant cry and whine. Poster presented at the *American Speech-Language-Hearing Association Annual Convention*, Philadelphia, PA, November 17-19, 2016.
93. Bidelman, G. M., Nelms, C., & Bhagat, S. P. (2016). Musical experience sharpens human cochlear

- tuning. Poster presented at the 39<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology, San Diego, CA, February 20-24, 2016.
94. Bidelman, G. M. & Grall, J. (2015). Functional organization for musical consonance and tonal pitch hierarchy in human auditory cortex. Poster presented at the *Society for Music Perception and Cognition (SMPC 2015)*, Nashville, TN, August 1-5, 2015.
  95. Myers, M. H., Albarran, D., Dobbins, A., Joure, C., Canales, A., & Bidelman, G.M. (2015). Induced audio/visual cortical remapping via looming stimulus. *Investigative Ophthalmology & Visual Science*, 56(7), 2929.
  96. \*Chung, W.-L., Jarmulowicz, L., & Bidelman, G. M. (2015). Auditory processing, linguistic prosody awareness, and word reading in Mandarin-English bilingual children. Paper presented as part of Symposium on “New Investigations into Suprasegmental Phonology and Reading” at the 22<sup>nd</sup> Annual Meeting of the Society for the Scientific Study of Reading, Big Island, HI, July 15–18, 2015.
  97. \*Hutka, S., Carpentier, S., Bidelman, G. M., & McIntosh, R. (2015). Using brain signal variability to examine how music and speech shape auditory processing. Poster presented at the Organization for Human Brain Mapping, Honolulu, HI, June 2015.
  98. \*Hutka, S., Carpentier, S., Bidelman, G. M., & McIntosh, R. (2015). Using brain signal variability to examine how music and speech shape auditory processing. Poster presented at the Brain Connectivity Workshop, San Diego, CA, June 2015.
  99. Bidelman, G. M. & Chung, W. (2015). Tone-language speakers show hemispheric specialization and differential cortical processing of contour and interval cues for pitch. Poster presented at the 22<sup>nd</sup> Annual meeting of the Cognitive Neuroscience Society, San Francisco, CA, March 28–31, 2015.
  100. \*Chung, W. & Bidelman, G. M. (2015). Cortical encoding and neurophysiological tracking of English stress patterns in native and nonnative speakers. Poster presented at the 22<sup>nd</sup> Annual meeting of the Cognitive Neuroscience Society, San Francisco, CA, March 28–31, 2015.
  101. Bidelman, G. M. & Bhagat, S. P. (2015). Right ear advantage drives the link between olivocochlear efferent “antimasking” and speech-in-noise listening benefits. Poster presented at the 38<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, Baltimore, MD, February 21–25, 2015.
  102. Bidelman, G. M. (2015). Multichannel recordings of the human brainstem frequency-following response: Scalp topography, source generators, and distinctions from the transient ABR. Poster presented at the 38<sup>th</sup> Annual meeting of the Association for Res. in Otolaryngology, Baltimore, MD, Feb. 21–25, 2015.
  103. Bidelman, G. M. & Alain, C. (2015). Musical training orchestrates coordinated neuroplasticity in auditory brainstem and cortex to counteract age-related declines in categorical speech perception. Poster presented at the 38<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, Baltimore, MD, February 21–25, 2015.
  104. \*Chung, W. & Bidelman, G. M. (2015). Tone-language speakers show hemispheric specialization and differential cortical processing of contour and interval cues for pitch. Poster presented at the 38<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, Baltimore, MD, February 21–25, 2015.
  105. \*Hutka, S., Bidelman, G. M., & Moreno, S. (2014). Is the cognitive stimulation of music training specific to music? Poster presented at the *Neuroscience and Music V – Cognitive Stimulation and Rehabilitation Society*, Dijon, France, May 29–June 1, 2014.
  106. Cousineau, M., Bidelman, G. M., Peretz, I., & Lehmann, A. (2014). Dissonance and the brainstem: Insights from natural stimuli and congenital amusia. Poster presented at the *Neuroscience and Music V – Cognitive Stimulation and Rehabilitation Society*, Dijon, France, May 29–June 1, 2014.
  107. \*Bashivan, P., Bidelman, G. M., & Yeasin, M. (2014). Predicting working memory capacity using spectro-temporal characteristics of the oscillatory EEG. Poster presented at the 21<sup>st</sup> Annual meeting of the Cognitive Neuroscience Society, Boston, MA, April 5–8, 2014.
  108. Bidelman, G. M., Villafuerte, J. W., & Moreno, S., & Alain, C. (2014). Age-related changes in subcortical-cortical encoding and categorical perception of speech. Poster presented at the 37<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, San Diego, CA, February 2014.

109. \*Syed Khaja, A. S. & Bidelman, G. M. (2014). Brainstem correlates of temporal-spectral resolution tradeoff in the human auditory system. Poster presented at the *37<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 2014.
110. Moreno, S., Lee, Y., Bidelman, G. M., Moussard, A., & Alain, C. (2013). Cognitive benefits of music and art training in healthy older adults. Poster presented at the *20<sup>th</sup> Annual meeting of the Cognitive Neuroscience Society*, San Francisco, CA, April 13–16, 2013.
111. Bidelman, G. M., Moreno, S., Lee, Y., Moussard, A., & Alain, C. (2013). Short-term musical training enhances pre-attentive auditory processing in older adults. Poster presented at the *20<sup>th</sup> Annual meeting of the Cognitive Neuroscience Society*, San Francisco, CA, April 13–16, 2013.
112. Moreno, S., Lee, Y., Bidelman, G. M., Moussard, A., & Alain, C. (2013). Cognitive benefits of music and art training in healthy older adults. Poster presented at the *2<sup>nd</sup> Meeting of the Entertainment Software and Cognitive Neurotherapeutics Society*, Los Angeles, CA, March 15–17, 2013.
113. Bidelman, G. M., Moreno, S., Lee, Y., Moussard, A., & Alain, C. (2013). Short-term musical training enhances pre-attentive auditory processing in older adults. Poster presented at the *2<sup>nd</sup> Meeting of the Entertainment Software and Cognitive Neurotherapeutics Society*, Los Angeles, CA, March 15–17, 2013.
114. Moreno, S., Lee, Y., Bidelman, G. M., Moussard, A., & Alain, C. (2013). Cognitive benefits of music and art training in healthy older adults. Talk presented at the *Baycrest 23<sup>rd</sup> Annual Neuroscience Conference: Brain Plasticity & Neurorehabilitation*, Toronto, ON, Canada, March 3–6, 2013.
115. Bidelman, G. M., Weiss, M. W., Moreno, S., & Alain, C. (2013). Musical training strengthens the subcortical-cortical encoding and categorical perception of speech. Poster presented at the *36<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 16–20, 2013.
116. Bidelman, G. M., Moreno, S., Lee, Y., Moussard, A., & Alain, C. (2013). Enhanced pre-attentive auditory processing following short-term musical training in older adults. Poster presented at the *41<sup>st</sup> Meeting of International Neuropsychological Society*, Waikoloa, HI, February 6–9, 2013.
117. Moreno, S., Lee, Y., Bidelman, G. M., Moussard, A., & Alain, C. (2013). Cognitive benefits of music and art training in healthy older adults. Poster presented at the *41<sup>st</sup> Meeting of International Neuropsychological Society*, Waikoloa, HI, February 6–9, 2013.
118. \*Hutka, S., Bidelman, G. M., Moreno, S. (2012). Evidence for bidirectionality in music-to-language transfer effects. Poster presented at the *42<sup>nd</sup> Annual Meeting of the Society for Neuroscience (SfN)*, New Orleans, LA, October 13–17, 2012.
119. Kuhn-Popp, N., Herring, A., Rose, N., Craik, F., Rendell, P.G., Moreno, S., Bidelman, G.M., & Kliegel, M. (2012) Virtual-Week Training: A process-oriented training program to improve prospective memory performance in older adults. Poster presented at the *48<sup>th</sup> Congress of the German Society for Psychology*, Bielefeld, Germany, September 23–27, 2012.
120. Rose, N.S., Craik, F.M., Hering, A., Rendell, P. G., Moreno, S., Bidelman, G. M., & Kliegel, M. (2012) Differential predictors of prospective memory performance in old age: Laboratory and naturalistic tasks are associated with different cognitive processes. Poster presented at the *Cognitive Aging Conference*, Atlanta, GA, April 19–22, 2012.
121. Rose, N. S., Craik, F. I. M., Hering, A., Rendell, P., Moreno, S., Bidelman, G., & Kliegel, M. (2012). Training older adults' prospective memory with the Virtual Week video game. Poster presented at the *Cognitive Aging Conference*, Atlanta, GA.
122. Bidelman, G. M. (2012). Objective information-theoretic algorithm for detecting brainstem evoked responses to complex stimuli. Poster presented at the *35<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 25–29, 2012.
123. Ananthakrishnan, S., Krishnan, A., Smalt, C.J., & Bidelman, G. M. (2012). Brainstem-level Temporal Fine Structure Encoding in Cochlear Hearing Loss. Poster presented at the *35<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 25–29, 2012.
124. Krishnan, A., Smalt, C. J., Bidelman, G. M., Ananthakrishnan, S., & Gandour, J. T. (2012). Evaluation of Pitch Representations Measured Concurrently in Auditory Brainstem and Cortex, and Their Relationship to Behavioral Measures of Pitch Salience. Poster presented at the *35<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology*, San Diego, CA, February 25–29, 2012.

125. Bidelman, G. M., & Heinz, M.G. (2011). Auditory-nerve responses predict pitch attributes related to musical consonance and dissonance for normal and impaired hearing. Poster presented at the 34<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, Baltimore, MD, Feb. 19–23, 2011.
126. Bidelman, G. M., Krishnan, A., & Gandour, J. T. (2011). Enhanced brainstem pitch encoding in tone-language speakers does not translate to perceptual benefits for music. Poster presented at the 34<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, Baltimore, MD, Feb. 19–23, 2011.
127. Ananthakrishnan, S., Krishnan, A., Gandour, J.T., Bidelman, G.M., & Smalt, C.J. (2011). Brainstem origins of the differential hemispheric laterality for linguistic and nonlinguistic pitch. Poster presented at the 34<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, Baltimore, MD, February 19–23, 2011.
128. Bidelman, G. M., & Heinz, M. G. (2011). Auditory-nerve responses predict pitch attributes related to musical consonance and dissonance for normal and impaired hearing. Poster presented at the *Sigma Xi Graduate Student Research Awards Competition*, Purdue University, February 7, 2011.
129. Bidelman, G. M., Krishnan, A., & Gandour, J. T. (2010). Neural representation of pitch salience in the human brainstem revealed by psychophysical and electrophysiological indices. Poster presented at the 33<sup>rd</sup> Annual meeting of the Association for Research in Otolaryngology, Anaheim, CA, Feb. 6–10, 2010.
130. Bidelman, G. M., Krishnan, A., & Gandour, J. T. (2010). Brainstem pitch representation in native speakers of mandarin is less susceptible to degradation of stimulus temporal regularity. Poster presented at the 33<sup>rd</sup> Annual meeting of the Association for Research in Otolaryngology, Anaheim, CA, February 6–10, 2010.
131. Ananthakrishnan, S., Krishnan, A., & Bidelman, G. M. (2010). Human frequency following response: Differential responses to positive & negative gain of iterated rippled noise (IRN) stimuli. Poster presented at the 33<sup>rd</sup> Annual meeting of the Association for Res in Otolaryngology, Anaheim, CA, Feb. 6–10, 2010.
132. Bidelman, G. M., Krishnan, A., & Gandour, J.T. (2009). The effects of tone language experience on pitch processing in the brainstem. Poster presented at the inaugural *Neurobiology of Language Conference (NLC '09)*, Chicago, IL, October 15–16, 2009.
133. Bidelman, G. M., Gandour, J.T., & Krishnan, A. (2009). Relative influence of musical and linguistic experience on the subcortical encoding of pitch. Poster presented at the *Annual Conference of the Society for Music Perception and Cognition (SMPC '09)*, Indianapolis, IN, August 3–7, 2009.
134. Bidelman, G. M., & Krishnan, A. (2009). Subcortical correlates of consonance, dissonance, and musical pitch hierarchy in the human brainstem. Poster presented at the *Annual Conference of the Society for Music Perception and Cognition (SMPC '09)*, Indianapolis, IN, August 3–7, 2009.
135. Bidelman, G. M., Gandour, J. T., & Krishnan, A. (2009). Cross-domain effects of language and music experience on the representation of pitch in the human auditory brainstem. Poster presented at the 16<sup>th</sup> Annual meeting of the Cognitive Neuroscience Society, San Francisco, CA, March 21–24, 2009.
136. Krishnan, A., Gandour, J. T., Bidelman, G. M., & Swaminathan, J. (2009). Experience-dependent neural representation of dynamic pitch in the brainstem. Poster presented at the *American Auditory Society Annual Meeting*, Scottsdale, AZ, March 5–7, 2009.

#### **Other publications (non-peer reviewed)**

1. Bidelman, G. M. Price, C. N., Mahmud, S., & Yeasin, M. (2020). Decoding hearing loss from brain signals. *The Hearing Journal*, 73(11), 42-45. (invited)
2. Bidelman, G. M. (Ed.) (2018; 2020). Research in Communication Sciences and Disorders, University of Memphis publication, pp.1-28. ([link](#))
3. Bidelman, G. M. & Alain, C. (2017). Auditory biomarker identified for early cognitive impairment. *The Hearing Journal*, 70(5), 18-20. (invited)
4. Bidelman, G. M. (2015). Musicianship for promoting brain health and perceptual-cognitive skills across the lifespan. *Health Naturally Magazine*, May Issue, 49-57.

#### **Books**

Rardin, P., Bidelman, G., Smith, C., & Bagaglia, E. (Eds.). (2010). *Sing to the Colors: The University of Michigan Songbook*. Ann Arbor, MI: Edwards Brothers.



## Software (<https://github.com/bidelmanLab>)

1. Moinuddin, K. A., Yeasin, M., & Bidelman, G. M. (2019). BrainO software (Version 1.0.3). Retrieved from <https://github.com/cvpia-uofm/BrainO>
2. Bidelman, G. M., Jennings, S. & Strickland, B. (2015). PsyAcoustX: A flexible MATLAB® package for psychoacoustics research (v1). Retrieved from <https://sites.google.com/site/psyacoustx/>

## Doctoral dissertation

Bidelman, G. M. (2011). Neural correlates of musical and linguistic pitch as revealed in the auditory brainstem (Order No. 3475478, Purdue University). *ProQuest Dissertations and Theses*, 174.

## Video

Bidelman, G. M. (Producer), (2008). *Hearing conservation: Protecting your ears against harmful sound* [DVD]. Produced for OSHA hearing screenings for the Purdue University Speech and Hearing Clinic.

## Presentations

### Conference talks (keynote/invited)

1. Bidelman, G. M. (2024). "Phonetic categories in speech emerge subcortically: Converging evidence from the frequency-following response (FFR)," 5<sup>th</sup> Frequency-Following Response Workshop (FFR2024), Chicago, IL, June 12-14, 2024.
2. Bidelman, G. M. (2023). "Novel neuroimaging assays of corticofugal efferent system function and applications to understanding the aging auditory system," 2023 Annual Meeting of the Greater Indiana Chapter Society for Neuroscience, W. Lafayette, IN, September 8, 2023.
3. Bidelman, G. M. (2022). "Teaching an old (FFR) dog new tricks: Innovations to characterize online changes in brainstem-cortical speech function," 4<sup>th</sup> Frequency Following Response Workshop (FFR2022), Barcelona, Spain, June 8-10, 2022. [**Keynote lecture**]
4. Bidelman, G. M. (2021). "Unraveling the impact of auditory aging on speech processing via concurrent brainstem and cortical evoked potentials," XXVII Biennial Symposium of the International Evoked Response Audiometry Study Group (IERASG), Cologne, Germany, June 20-24, 2021. [**Keynote lecture**]
5. Bidelman, G. M. (2021). "The impact of musicianship on the neural processing of speech across the lifespan," Neurosciences and Music – VII: Connecting with music across the lifespan, Aarhus, Denmark, June 18-21, 2021.
6. Bidelman, G. M. (2019). "Brain Benefits of Music: Spotlight on Aging," 15<sup>th</sup> Annual NeuroMusic, McMaster University, Hamilton, ON, Canada, November 9, 2019. [**Keynote speaker**]
7. Bidelman, G. M. (2018). "Relative contributions of auditory nerve, brainstem, and cortical generators to the auditory frequency-following response revealed by EEG," 58<sup>th</sup> Annual Meeting of the Society for Psychophysiological Research (SPR), Quebec City, Quebec, Canada, October 3-7, 2018.
8. Bidelman, G. M. (2017). "Age- and training-related plasticity in the auditory neural processing of speech: Connecting periphery to percept," 47<sup>th</sup> Annual Mid-South Conference on Communicative Disorders, Memphis, TN, February 16, 2017.
9. Bidelman, G. M. (2016). "Age- and training-related plasticity in the auditory neural processing of speech: Connecting periphery to percept," 33<sup>rd</sup> World Congress of Audiology, Vancouver, Canada, September 18-21, 2016.
10. Bidelman, G. M. & Howell, M. (2016). "Functional changes in inter- and intra-hemispheric cortical processing underlying degraded speech perception," 39<sup>th</sup> Annual MidWinter Meeting of the Association for Research in Otolaryngology, San Diego, CA, February 20-24, 2016.
11. Bidelman, G. M. (2015). "Neurophysiological origins of consonance, dissonance, and the hierarchy of musical pitch," *Society for Music Perception and Cognition (SMPC 2015)*, Nashville, TN, August 1-5, 2015.
12. Bhagat, S. & Bidelman, G. M. (2014). "Optimizing otoacoustic emissions as biomarkers for hormone regulation in healthy women," *American Speech-Language-Hearing Association Annual Convention*, Orlando, FL, November 20-22, 2014.

13. Alain, C. & Bidelman, G. M. (2013). "Neurocomputation underlying sound segregation: From periphery to percept," *53<sup>rd</sup> Annual Meeting of the Society for Psychophysiological Research (SPR)*, Florence, Italy, October 2-6, 2013.
14. Bidelman, G. M., Weiss, M. W., Moreno, S., & Alain, C. (2013). "Musical training strengthens the subcortical-cortical encoding and categorical perception of speech," *Society for Music Perception and Cognition (SMPC 2013)*, Toronto, ON, Canada, August 8–11, 2013.
15. Moreno, S., Lee, Y., Bidelman, G. M., Moussard, A., & Alain, C. (2013). "Cognitive benefits of music and art training in healthy older adults," *Society for Music Perception and Cognition (SMPC 2013)*, Toronto, ON, Canada, August 8–11, 2013.
16. Marie, C., Bidelman, G. M., Bruce, I. C., & Trainor, L. (2013). "Investigating the origin of the high voice superiority effect in music," *Society for Music Perception and Cognition (SMPC 2013)*, Toronto, ON, Canada, August 8–11, 2013.
17. Hutka, S., Bidelman, G. M., & Moreno, S. (2013). "On the bidirectionality of music-to-language transfer effects," *Society for Music Perception and Cognition (SMPC 2013)*, Toronto, ON, Canada, August 8–11, 2013.
18. Bidelman, G. M. (2013). "The effects of music/language expertise on subcortical plasticity, auditory perceptual abilities, and cognitive transfer," *36<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 2013.
19. Bidelman, G. M., & Alain, C. (2013). "Hierarchical neurocomputations underlying concurrent sound segregation: Connecting periphery to percept," *36<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology*, Baltimore, MD, February 2013.
20. Bidelman, G. M. (2012). "Translating art to science: Music induced benefits to human cognition," *Inaugural Brain Power Conference*, Toronto, ON, May 3–4, 2012.

#### **Other talks and seminars (invited)**

1. Bidelman, G. M. (2025). "Maladaptive connectivity within the auditory-brainstem pathways as a mechanism for speech processing deficits in aging," *Oxyopia Seminar Series*, Indiana University School of Optometry, April 25, 2025.
2. Bidelman, G. M. (2025). "Structure-function biomarkers of the auditory brainstem-cortical pathways as a window into speech processing deficits in aging," *Seminars in Hearing and Communication Sciences (SHACS)*, University of Washington, Seattle, WA, April 17, 2025.
3. Bidelman, G. M. (2025). "Brain benefits of music across the lifespan," *COGS-Q 400 Senior Seminar in Cognitive and Information Sciences*, Indiana University, March 3, 2025.
4. Bidelman, G. M. (2024). "Phonetic categories in speech emerge subcortically: Converging evidence from the frequency-following response (FFR)," *University of Pennsylvania Linguistics Seminar*, April 5, 2024.
5. Bidelman, G. M. (2023). "Novel neuroimaging assays of corticofugal efferent system function and applications to understanding the aging auditory system," *Indiana University School of Medicine*, November 6, 2023.
6. Bidelman, G. M. (2023). "Using systems-level neuroimaging to characterize auditory aging and its impact on speech processing," *Indiana University, Cognitive Science Colloquium*, Feb. 22, 2023.
7. Bidelman, G. M. (2022). "Brain benefits of music across the lifespan," *Jacob's School of Music*, Indiana University, September 30, 2022.
8. Bidelman, G. M. (2021). "Unraveling the impact of auditory aging on speech processing via a systems level neuroimaging approach," *Indiana University, SLHS Colloquium*, April 9, 2021.
9. Bidelman, G. M. (2020). "Unraveling the impact of auditory aging on speech processing via a systems level neuroimaging approach," *University of Iowa*, January 31, 2020.
10. Bidelman, G. M. (2020). "Unraveling the impact of auditory aging on speech processing via a systems level neuroimaging approach," *University of Utah Division of Otolaryngology, Inner Ear Seminar Series*, January 15, 2020.



11. Bidelman, G. M. (2020). "Unraveling the impact of auditory aging on speech processing via a systems level neuroimaging approach," University of Texas-Dallas Callier Center, January 13, 2020.
12. Bidelman, G. M. (2017). "The effects of music and tone-language experience on neuroplasticity, perceptual abilities, and cognitive transfer," Eastman School of Music, Music Cognition Symposium, Rochester, NY, November 18, 2017.
13. Bidelman, G. M. (2017). "Hierarchical auditory neural processing underlying speech perception at the cocktail party," University of Maryland, Neuroscience and Cognitive Science (NACS) Seminar, College Park, MD, October 27, 2017.
14. Bidelman, G. M. (2017). "The effects of music and tone-language experience on neuroplasticity, perceptual abilities, and cognitive transfer," Florida International University, Miami, FL, March 22, 2017.
15. Bidelman, G. M. (2016). "Minimizing noise-induced hearing loss with musicianship," University of Memphis CSD Research Colloquium, September 23, 2016.
16. Bidelman, G. M. (2016) "Experience-dependent effects in the analysis of the auditory scene," Cognitive Science Seminar, University of Memphis, September 14, 2016.
17. Bidelman, G. M. (2016). "Hierarchical auditory neural processing underlying degraded speech listening skills," University of Memphis CSD Research Colloquium, January 29, 2016.
18. Bidelman, G. M. (2015). STEM Talk: "Music and Language—Effects on the Brain," Oakton Community College, Des Plaines, IL, November 18, 2015.
19. Bidelman, G. M. (2015) "Auditory neurodynamics in "cocktail party listening," Cognitive Science Seminar, University of Memphis, September 23, 2015.
20. Walker, B., Reed, M. & Bidelman, G. M. (2015). "Investigation of Musicianship on Categorical Perception of Music and Speech Stimuli," University of Memphis Undergraduate Student Research Forum, March 30, 2015.
21. Bidelman, G. M. (2014). "Hierarchical neurocomputations underlying concurrent sound segregation: Connecting periphery to percept," University of Memphis CSD Research Colloquium, October 17, 2014.
22. Bidelman, G. M. (2014). "Categorical speech perception," AUSEP 8002 Speech Perception Seminar, University of Memphis, June 26, 2014.
23. Bidelman, G. M. (2014). "Auditory neural coding of speech," AUSEP 8002 Speech Perception Seminar, University of Memphis, June 26, 2014.
24. Hutka, S., Bidelman, G. M., & Moreno, S. (2014). "Studying the music-speech association using linear and non-linear frameworks." Invited talk given at the International Laboratory for Brain, Music and Sound Research (BRAMS) MindMeld, BRAMS, Montreal, QC, July 2014.
25. Hutka, S., Bidelman, G. M., & Moreno, S. (2013). "On the neural responses underlying bidirectionality of music-to-language transfer." Poster presented at the NSERC-Create: Auditory Cognitive Neuroscience Workshop, McMaster University, Hamilton, ON, August, 2013.
26. Hutka, S., Gordon, C., Bidelman, G. M., McIntosh, R., & Moreno, S. (2013). "The behavioural aspects of bidirectionality in music-to-language transfer." Poster presented at the NSERC-Create: Auditory Cognitive Neuroscience Workshop, McMaster University, Hamilton, ON, August, 2013.
27. Hutka, S., Bidelman, G. M., & Moreno, S. (2013, June). "The bidirectionality in music-to-language transfer effects." Poster presented at the Collaborative Program in Neuroscience Research Day/Inter, Symposium on Structural Neurobiology, University of Toronto, Toronto, ON, June, 2013.
28. Bidelman, G. M. (2013) "The neural basis of categorical speech perception," Cognitive Science Seminar, University of Memphis, April 3, 2013.
29. Bidelman, G. M. (2012) "Transfer effects between language and music: Examining the road less traveled," University of Memphis CSD Research Colloquium, October 5, 2012.
30. Bidelman, G. M. (2012) "Neurophysiological origins of consonance, dissonance, and the hierarchy of musical pitch," The Institute for Music & the Mind, McMaster University, Hamilton, ON, March 16, 2012.

31. Bidelman, G. M. (2011) "Sensory tuning to cognitive benefits: The missing link in transfer effects between music and language processing," International Laboratory for Brain, Music, and Sound Research (BRAMS), McGill University, Montreal, QC, November 30, 2011.
32. Bidelman, G. M. (2011) "The Role of the Auditory Brainstem in Speech & Music Processing," Rotman Research Institute, Baycrest Research Rounds, Toronto, ON, October 24, 2011.
33. Bidelman, G. M. (2011) "Brain-behavior connections in the encoding of music and speech: Innate and acquired effects," Center for Computer Research in Music and Acoustics (CCRMA), Stanford University, Stanford, CA, February 14, 2011.
34. Bidelman, G.M. (2010) "Subcortical correlates of consonance, dissonance, & the hierarchy of musical pitch," Purdue University Robert L. Ringel Symposium, W. Lafayette, IN, April 30, 2010.
35. Bidelman, G.M. (2008) "Influence of language and music experience on the representation of pitch in the human brainstem," Purdue University Robert L. Ringel Symposium, W. Lafayette, IN, Sept. 26, 2008.

## Teaching & Mentoring

### Professional development

- |  |      |
|--|------|
| BESA Research EEG Workshop (online), June 19-23, 2023  | 2023 |
| Emerging Scientists: Train-the-trainers workshop on professional development, RCR, and inclusion | 2021 |

### Graduate teaching

#### *Indiana University*

- S571 – Auditory Anatomy and Physiology (Fa24)
- S574 – Central Auditory Nervous System (Sp25)
- S572 – Clinical Electrophysiology (Fa24)
- S671 – Auditory Evoked Potentials (Su23, Sp24)
- NEUS-N800 – Research (semesterly)
- S678 – Psychoacoustics (Sp23)
- S777 – Applied Topics in Audiology (Fa22, Fa23, Su25—team)
- S674 – PhD Seminar, Hearing Science: "Models and Mechanisms of Hearing" (Fa22)

#### *University of Memphis*

- AUSP 8118 – Electrophysiologic Assessment of the Auditory System (Fa17, Fa18, Fa19, Fa20, Fa21)
- AUSP 8001 – Psychoacoustics (Fa14, Fa15, Fa16, Fa17)
- AUSP 8121 – Special topics: EEG time-frequency analysis (Sp21)
- AUSP 8121 – Special topics: EEG source analysis (Sp21)
- AUSP 8112 – Neuroimaging Applications for Speech & Hearing Science (Sp13, Sp15, Sp17)
- AUSP 8017 – Digital Signal Processing for Speech/Hearing (Sp14, Sp16).
- PSYC/COMP/PHIL 7514/8514 – Cognitive Science Seminar:
  - "Music, Language, and the Brain" (Fa13)
  - "The Brain Basis of Human Behavior" (Sp20)
- AUSP 7130/8130 – Responsible Conduct in Research (RCR) & Scientific Ethics (Fa21)
- AUSP 8021 – Professional Prep. for Scientists: Scientific Writing and Peer Review (Su19, Sp22)
- AUSP 8400 – Mentored Teaching (Fa18, Fa20)
- AUSP 8121 – Independent Readings/Research Projects (x4-5/term, 2012-2022)

#### *Purdue University*

- SLHS 519 – Clinical Research and Treatment Efficacy (Sp10)

### Undergraduate teaching

#### *Indiana University*

- COGS-X 497 - Research in the Cognitive & Information Sciences (Fa24, Sp25)

#### *University of Memphis*

- BIOM 4782 - Biomedical Design Practicum

#### *Purdue University*

- SLHS 215 Exploring Audiology & Hearing Science
- SLHS 304 Anatomy & Physiology of the Speech & Hearing Mechanism
- SLHS 460 Language and the Brain

## Mentoring, Postdocs

Jesyin Lai, PhD	2021–2022
Current position: St. Jude Postdoctoral Fellow	
Karen Bell, AuD, PhD	2020–2021
Current position: Assistant Professor, San Jose State University, CSD	
Caitlin Price, AuD, PhD	2020–2021
Current position: Assistant Professor, University of Arkansas, CSD	
Gwyneth Lewis, PhD	2018–2020

## Mentoring, PhD students – major professor and dissertation chair

Jessica MacLean	Indiana University, dual SLHS/PNS	2022–
Rose Rizzi	Indiana University, dual SLHS/PNS	2022–
Jane Brown	University of Memphis, CSD	2019–2023
Dissertation: “ <i>The role of background music in concurrent speech perception</i> ”		
Current position: Postdoc, Harvard University		
Jared Carter	University of Memphis, CSD	2019–2022
Dissertation: “ <i>Effects of nonlinear dynamics of speech categorization on cortical and brainstem responses</i> ”		
Current position: Assistant Professor, Gallaudet University SLHS		
Sara Momtaz	University of Memphis, CSD	2018–2022
Dissertation: “ <i>Effects of stimulus rate and periodicity on auditory cortical entrainment and their relation to speech rhythms</i> ”		
Current position: Postdoc, Boys Town National Research Hospital		
Kelsey Mankel	University of Memphis, CSD	2016–2021
Dissertation: “ <i>Individual auditory categorization abilities are shaped by intrinsic and experience-driven neural factors</i> ”		
Current position: Assistant Professor, University of Memphis CSD/IIS		
Caitlin N. Price (AuD/PhD)	University of Memphis, CSD	2017–2020
Dissertation: “ <i>Neural mechanisms underlying hierarchical speech-in-noise processing</i> ”		
Current position: Assistant Professor, University of Arkansas, CSD		
Jessica Yoo	University of Memphis, CSD	2017–2019 (switched to AuD)
Anusha Yellamsetty	University of Memphis, CSD	2014–2018
Dissertation: “ <i>Dissociable mechanisms of concurrent speech segregation in noise at cortical and brainstem levels</i> ”		
Current position: Assistant Professor, San Jose State University, Department of Audiology		

## PhD dissertation committees (\*co-chair, †external reader)

Donghyeon Yun	Indiana University, SLHS	2024
Dissertation: “ <i>Effects of nonlinear algorithms on output signal-to-noise ratios of a digital hearing aid</i> ”		
Current position: Assistant Professor, University of Colorado Boulder, SLHS		
Ryan Anderson	Indiana University, SLHS	2024
Dissertation: “ <i>Psychoacoustic and electrophysiological measures of interaction between pitch and timbre cues in static and dynamically varying sounds</i> ”		
*Deling He	University of Memphis, CSD	2021–2023
Dissertation: “ <i>Acoustic-driven and cross-language effects on the neuro-behavioral synchronization to speech rhythms</i> ”		
Current position: Postdoc, University of Wisconsin-Madison		
Lipika Sarangi	University of Memphis, CSD	2021
Dissertation: “ <i>An investigation of the relative impacts of hearing aid self-efficacy and personality on aspects of hearing aid success</i> ”		
Current position: Assistant Professor, University of Arkansas, CSD		
Megan Battles Parsons	University of Memphis, CSD	2021
Dissertation: “ <i>Investigating speech rate alignment in individuals with traumatic brain injury</i> ”		
Current position: Adjunct Professor, School of Communication Sciences and Disorders, U. Memphis		

Speech-Language Pathologist, Methodist Le Bonheur Healthcare

- \*Md Sultan Mahmud                      University of Memphis, EECE                      2021  
Dissertation: "*Multivariate analysis for understanding cognitive speech processing*"  
Current position: Data Engineer, University of Tennessee Health Science Center (UTHSC)
- Rakib Al-Fahad                      University of Memphis, EECE                      2020  
Dissertation: "*Multivariate modeling of cognitive performance and categorical perception from neuroimaging data*"  
Current position: Cloud Solution Engineer, Intel (industry)
- Saleha Khatun                      University of Memphis, EECE                      2018  
Dissertation: "*Automated artifact removal and detection of mild cognitive impairment from single channel electroencephalography signals for real-time implementations on wearables*"  
Current position: Cadence Design Systems, software engineer (industry)
- Shi Feng                      University of Memphis, Music                      2018  
Dissertation: "*The role of source monitoring in resolving cognitive disequilibrium on texts with controversial topics*"  
Current position: California Polytechnic State University, Center for Teaching and Learning
- Hyunjoo Yoo                      University of Memphis, CSD                      2018  
Dissertation: "*Reactions of adult listeners to infant distress vocalizations and protophones*"  
Current position: Assistant Professor, University of Alabama
- Chia-Cheng Lee                      University of Memphis, CSD                      2017  
Dissertation: "*Vocal Development in English- and Chinese-learning infants*"  
Current position: Speech-language Pathologist, Akin (Childhaven)
- †Christopher Slugocki                      McMaster University, Psychology                      2017  
Dissertation: "*Examining distributed change-detection processes through concurrent measurement of subcortical and cortical auditory-evoked potentials*" (Chair: Laurel Trainor)  
Current position: Widex (industry)
- †Caitlin Dawson                      University of Helsinki, Psychology                      2017  
Dissertation: "*Effects of linguistic and musical experience on early auditory processing: Electrophysiological and behavioral evidence*" (Chair: Mari Tervaniemi)
- Johnnie Bass                      University of Memphis, CSD                      2017  
Dissertation: "*Auditory Function in Patients Who Received Cranial Radiation Therapy for Childhood Cancer*"  
Current position: Research Audiologist, St. Jude's Children Research Hospital
- Sungmin Lee                      University of Memphis, CSD                      2017  
Dissertation: "*Predicting Speech Recognition using the Speech Intelligibility Index (SII) for Cochlear Implant Users and Listeners with Normal Hearing*"  
Current position: Assistant Professor, Department of Speech-Language Pathology and Aural Rehabilitation, Tongmyung University, Korea
- Jeremy Grall                      University of Memphis, Music                      2017  
Dissertation: "*From Impressionism to 'Impressions': Intertextuality, rhetoric, and Signifyin' in John Coltrane's 'Impressions'*"  
Current position: Director of School of Music, Associate Professor of Music, Purdue University Fort Wayne
- Chhayakant Patro                      University of Memphis, CSD                      2016  
Dissertation: "*The effect of top-down compensation on speech perception using simulated cochlear implant processing and post-lingual cochlear implant users*"  
Current position: Assistant Professor, Towson University
- Ruhi Mahajan                      University of Memphis, EECE                      2016  
Dissertation: "*BRAINSENS: body-worn reconfigurable architecture of integrated network sensors*"  
Current position: Principal Data Scientist, Zywie, Inc. (industry)
- \*Pouya Bashivan                      University of Memphis, EECE                      2016  
Dissertation: "*Commonality and Singularity in Working Memory Network Predicting Performance and Individual Diff.*"

Current position: Assistant Professor, McGill University, Department of Physiology

Henry Hua                                      University of Memphis, Psychology                                      2015  
Dissertation: *"Effects of spaced practice on learning musical intervals"*

Weilun Chung                                      University of Memphis, CSD                                      2015  
Dissertation: *"Auditory processing and linguistic prosody as cross-linguistic precursors in reading development"*  
Current position: Associate Professor, Department of Special Education, National Taipei University of Education

#### PhD Advisory Committee Member (\*chair)

Serena Bruneaux                                      Indiana University, SLHS, PNS  
Abdullah Bin Shulhub                                      Indiana University, SLHS  
Chad Bullard                                      Indiana University, SLHS  
\*Rose Rizzi                                      Indiana University, SLHS, PNS  
\*Jessica McLean                                      Indiana University, SLHS, PNS  
Carey Smith                                      Indiana University, SLHS  
Comfort Fabode                                      Indiana University, SLHS

#### Mentoring, AuD and MD student research projects, chaired (\*co-chair, †external reader)

Elaina Lewis                                      IU School of Medicine                                      2023-present  
Christine Sledge                                      University of Memphis                                      2021–2022  
Kimberly Skubic                                      University of Memphis                                      2021–2022  
Maddie Server                                      University of Memphis                                      2021–2022  
Fallon Bernard                                      University of Memphis                                      2021–2022  
Brian Decker                                      University of Memphis                                      2021–2022  
†Lydia Barber                                      Towson University, SLHS                                      2021

AuD Thesis: *"Neural correlates of spatial hearing"* (Chair: Saradha Ananthakrishnan)

†Kathryn Pagliarulo                                      Towson University, SLHS                                      2021  
AuD Thesis: *"Neural correlates of auditory stream segregation"* (Chair: Saradha Ananthakrishnan)

†Lauren Martin                                      Towson University, SLHS                                      2020  
AuD Thesis: *"Frequency following response: An electrophysiological approach to assessing noise exposure"* (Chair: Saradha Ananthakrishnan)

Claire Pearson                                      University of Memphis                                      2019–2020  
Ashleigh Harrison                                      University of Memphis                                      2019–2020  
Lauren Sigley                                      University of Memphis                                      2018–2019  
Kate Rivers Allen                                      University of Memphis                                      2018–2019  
Ashley Anne Peeples                                      University of Memphis                                      2018–2019  
Lauren Bush                                      University of Memphis                                      2018–2019  
Alex Boudreaux                                      University of Memphis                                      2018–2019  
Jacob Barber                                      University of Memphis                                      2018–2019  
Bonnie Brown                                      University of Memphis                                      2017–2018  
Louise Powers                                      University of Memphis                                      2017–2018  
Mary Katherine Davis                                      University of Memphis                                      2017–2018  
Gelareh Faz                                      University of Memphis                                      2017–2018  
Victoria Heitzmann                                      University of Memphis                                      2016–2017  
Jessany Knapp                                      University of Memphis                                      2016–2017  
Claire McElwain                                      University of Memphis                                      2016–2017  
Calli Dugas                                      University of Memphis                                      2015–2016  
Shelley Traylor                                      University of Memphis                                      2015–2016  
Jill Lowther                                      University of Memphis                                      2014–2015  
Megan Howell                                      University of Memphis                                      2013–2014  
Lauren Dexter                                      University of Memphis                                      2013–2014  
Jon Schug                                      University of Memphis                                      2013–2014

#### Mentoring, MA students – thesis committees (\*chair/co-chair, †external reader)

Meng Cao                                      University of Memphis, Psychology                                      2022

MPP: “An adaptive training system for mandarin tone learning based on performance factors analysis difficulty model”

Katherine Crenshaw	University of Memphis, CSD (SLP)	2022
Thesis: “ <i>Language and cognition in mild Alzheimer’s disease</i> ”		
Felix Hagiomania	University of Memphis, EECE	2021
Thesis: “ <i>Deep Generative and Discriminative Approach in Modelling Spatial-spectral Dynamics of Varying Cognitive Load from EEG Recordings</i> ”		
*Kazi Ashraf Moinuddin	University of Memphis, EECE	2020
Thesis: “ <i>Decoding perception of speech from behavioral response using spatio-temporal CNNs</i> ”		
Rakib Al-Fahad	University of Memphis, EECE	2018
Thesis: “ <i>Neuroimaging based predictive modeling of cognitive events</i> ”		
*Md Sultan Mahmud	University of Memphis, EECE	2018
Thesis: “ <i>Brain connectivity analysis of normal hearing and hearing- impaired participants based on the cortical surface EEG data</i> ”		
Ariel Mathis	University of Memphis, Psychology	2017
Thesis: “ <i>Formation and perceptual categorization of spatial relationships across languages</i> ”		
*Brea Walker	University of Memphis, Psychology	2016
Thesis: “ <i>Stimulus familiarity and attentional effects on the neural org. of auditory categorical perception</i> ”		
Shi Feng	University of Memphis, Psychology	2015
Thesis: “ <i>Detecting contradiction in agent source monitoring during expository text comprehension</i> ”		

### **Mentoring, Undergraduate students: research and honors theses**

Lucy Borowski	Indiana University, COGS	2024 – 2025
Alexandria Doty	Indiana University, PBS	2024 – 2025
Rowan Zhou	Indiana University, Jacobs School of Music	2024 – 2026
Honors thesis: “ <i>The effect of rhythmic cues on speech-in-noise perception.</i> ”		
Connor Shin	University of Evansville	Summer 2024
Serenity Seigel	Indiana University	2024 – 2025
Honors thesis: “ <i>Examining links between structural tractography of the brain’s auditory-speech-language networks and speech-in-noise (SIN) perception using diffusion weighted imaging (DWI)</i> ”		
Elizabeth Drobny	Indiana University	2023 – 2024
Honors thesis: “ <i>Investigating the effects of musicianship and attention on the subcortical encoding of musical chords</i> ”		
Zara Eisenhut	Indiana University, Cox Scholar	2024 –
Jack Stirn	Indiana University, Cox Scholar	2022 –
Klavye Jardine, Robyn Miller, Utsav Shrestha, Hassan Hsry, David Hale	University of Memphis, BIOM 4782	2021
Honors thesis: “ <i>Design and implementation of an EEG phantom</i> ” (Senior Design Project)		

## **Recognition**

### **Awards and honors**

Program in Neuroscience (PNS) Outstanding Mentorship Award, Indiana University	2023
Graduate Student Association (GSA) Faculty Mentor Award, University of Memphis	2022
University Research Professorship, University of Memphis Office of the Provost	2021-2024
Article featured on journal cover, <i>NeuroReport</i> (Vol. 32, Issue 2)	2021
Article featured on journal cover, <i>NeuroReport</i> (Vol. 31, Issue 10)	2020
PI Millionaire, University of Memphis	2020
Eye of the Tiger Award, University of Memphis Alumni Association	2018
Top 10% of cited articles appearing in <i>PloS One</i> among >150K published articles	2017

Early Career Research Award (ECRA), University of Memphis	2016
Faculty Travel Enrichment Award, University of Memphis College of Arts & Sciences	2016
Invited participant with travel award, Annual Research Conference: " <i>Lessons for Success: Developing the Emerging Scientist</i> ", American Speech-Language-Hearing Association (ASHA)	2013
Sigma Xi (full member)	2012
Ismail Interdisciplinary Doctoral Research Award, Purdue University	2011
Robert L. Ringel Research Award, Purdue University	2010
Weinburg Research Scholarship, Purdue University	2010
NIDCD/NIH Pre-Doctoral Fellowship (T32 DC 00030)	2008 – 2010
Speech, Language, & Hearing Sciences Alumni & Friends Scholarship, Purdue University	2008 – 2009
Ross Fellowship, Purdue University	2007 – 2008
Valedictorian, Ypsilanti High School	2002

#### Awards to student mentees

Judith Gierut Outstanding PhD Research Award (awarded to PhD trainee J. MacLean)	2024
Watson Undergraduate Watson Research Award (awarded to UG trainee, E. Drobny)	2024
Judith Gierut Outstanding PhD Research Award (awarded to PhD trainee R. Rizzi)	2023

#### Media and press coverage

1. Murugesu, J. A. "The music you should play at a party to ensure conversations flow." *New Scientist*, November 30, 2023. <https://www.newscientist.com/article/2404743-the-music-you-should-play-at-a-party-to-ensure-conversations-flow/>
2. IU Research Impact. "How musical training impacts cognitive impairment." Podcast (Episode 294), August 8, 2022. <https://research.impact.iu.edu/research-news/podcasts/index.html>
3. IU Research Impact (Chambliss, A). "Past musical training may benefit those with mild cognitive impairment." Feature in *IU Research Impact*, August 1, 2022. <https://research.impact.iu.edu/key-areas/neuroscience/stories/musical-training-and-mci.html>
4. Aldridge, M. S. "Interdisciplinary Collaborations: Engineering." Feature in *Now Hear This! University of Memphis CSD Newsletter*, Issue 12, August, 2021.
5. Gallagher, N. "Our attention can shift our ability to process sounds—starting in the brain stem." *The Academic times*, April 8, 2021.
6. UofM, Feature in *University of Memphis Research and Innovation Magazine*. "UofM IMPACT: Breakthroughs in Speech and Hearing: Harnessing Brain Noise," pp. 46-47, Spring 2021.
7. UofM, Feature in *University of Memphis Research and Innovation Newsletter*. "Bidelman Receives NIH Grant," August 2020.
8. UofM, Feature in *University of Memphis Research and Innovation Newsletter*. "Faculty Featured on Cover of NeuroReport," August 2020.
9. UofM Media Room, *University of Memphis doctoral student awarded NIH F31 fellowship*, May 14, 2020.
10. UofM, *University of Memphis Magazine*. "Campus News: #6 Research Challenges Assumptions About Impact of Musical Training on the Brain," p.7, Spring 2019.
11. EurekAlert! AAAS. "Innate auditory skills and music training." Dec 3, 2018.
12. *University of Memphis President's Report Winter 2018*, "*Advances in Research*." Dec. 5, 2018, p. 22.
13. Codey Behles, *University of Memphis*, "University of Memphis Researchers Challenge the Relationship Between Musical Training and the Brain's Speech Processing Function." December 4, 2018.
14. UofM, *University of Memphis Magazine*. "Brain Waves," p.8, Fall 2018.
15. Michelle Corbet, *Memphis Business Journal*. "U of M researchers trying to determine where, when and how the human brain maps sound." June 1, 2018.
16. *This Week*, U Memphis. "Names in the News." August 12, 2017.
17. ScienceDaily.com. "The way the brain processes speech could serve as a predictor of early dementia before obvious communication problems appear." March 15, 2017.
18. NeuroscienceNews.com. "The way the brain processes speech could serve as a predictor of early dementia before obvious communication problems appear." March 15, 2017.
19. EurekAlert! AAAS. "The way the brain processes speech could serve as a predictor of early dementia before obvious communication problems appear." March 15, 2017.
20. J. Lim. "The way the brain processes speech could serve as a predictor of early dementia before obvious communication problems appear." *Baycrest Health Sciences*, March 8, 2017.
21. E. Maiberg. "This Virtual Board Game Could Help Your Grandpa Remember to Take His Pills." *Motherboard*, October 30, 2015.

22. EurekAlert! AAAS. "More evidence that musical training protects the brain." February 2, 2015.
23. Toronto Star. "Toronto researchers find playing music in youth helps hearing in old age." Feb. 6, 2015.
24. CTV News, Canada. "Musical training in youth keeps brain functioning longer: study." February, 4, 2015.
25. The Tribune, India. "Early musical training boosts 20pc brainpower in later life." February 3, 2015.
26. New York Daily News. "Musical training in youth keeps brain functioning longer: study." Feb. 4, 2015.
27. CBS *This Morning*, Science Roundtable Segment, National TV Broadcast, February 6, 2015.
28. N. Toche. "Learning to play an instrument compensates for the loss of language, *El Economista*, Mexico, February 5, 2015.
29. A. Nutt. "Early music training prevents loss of listening skills later in life," *The Washington Post*, February 3, 2015.
30. "Musical training protects brain," *Iran Daily*, February 4, 2015.
31. CKNW News Talk Radio, AM 980, British Columbia. Radio interview. February 3, 2015.
32. M. Benz. "Musical Training My Bolster Brain Plasticity Across A Lifetime," *MedicalResearch.com*, February 2, 2015.
33. D. Creech. "University receives grant from GRAMMY Foundation," *The Daily Helmsman*, April 29, 2014.
34. G. Maxey. "GRAMMY Foundation Awards U of M Grant for Hearing Study," *UofM News*, April. 2014.
35. K. Powers. "The Music Benefits of Speaking a Tonal Language," Research feature in *Teaching Music Magazine*, Oct. 2013.
36. M. Vuolo. "Can a Language Make You More Musical?" *Lexicon Valley* Podcast Episode No. 31, Washington, D.C., *www.slate.com*, July 15, 2013.
37. J. Hammock. "Examining music, language, and the brain," *The Sackville Tribune Post*, New Brunswick, Canada, April 10, 2013.
38. A. O'Connor. "Musical training and language skills chance one another," *The New York Times*, April 9, 2013.
39. "Sing-Song Cantonese Language Helps Musicality, Study," *Asian Scientist*, April 8, 2013.
40. S. Gates. "Tonal Languages, Music Ability Linked In New Study of Cantonese Speakers," *Huffington Post*, April 5, 2013.
41. C. Cheng. "Tonal languages help with learning music," *Counsel & Heal*, April 4, 2013.
42. "Report finds Asians, Africans and South Americans Might Make Better Musicians," *Voice of America News*, April 2, 2013.
43. "Report Finds Asians, Africans and South Americans Might Make Better Musicians," *Science World*, April 2, 2013.
44. "Speaking a Tonal Language (Such as Cantonese) Primes the Brain for Musical Training," *Science Daily*, April 2, 2013.
45. W. Leung. "Speakers of tonal languages are better able to hear music, study finds," *The Globe and Mail*, Toronto, ON, Canada, April 2, 2013.
46. "Young Baycrest researcher and his co-principal investigators win GRAMMY Foundation Award," *Baycrest News*, Toronto, ON, Canada, April 9, 2012.
47. C. Cronwlad. "Biology: Harmony resonates in the brain," *Experimentarium: Science*, Denmark, June 2010.

## Service & Outreach activities

### National Service

- Faculty Mentor. spARO Mentorship Program (M. Hazlett, Harvard), Association for Research in Otolaryngology (ARO), 2024-2025.
- Olney, A., Pavlik, P., Bidelman, G. Braasch, J., Huette, S. M., & Windsor, L. C. (2017). "Understanding Science as a Mixture of Research Quality and Social Influence," Response to request for information (RFI), (DARPA-SB- 17-57: Confidence Levels for the Social and Behavioral Sci.), 1-6.
- Program Committee, *Society for Music Perception and Cognition Annual Meeting (SMPC 2015)*, Nashville TN, 2015.
- Session Chair, "Young Investigator Symposium: Computational Modeling," 38<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, Baltimore, MD, February 2015.
- Session Chair, "Publishing & Grant Applications," ARO student mentoring session, 37<sup>th</sup> Annual meeting of the Association for Research in Otolaryngology, San Diego, CA, February 2014.
- Session Chair, "Music Therapy & Cognitive Processing," Society for Music Perception and Cognition (SMPC 2013), Toronto, ON, Canada, August 11, 2013.



## **Institutional Service**

### **University**

#### *Indiana University*

F100 Faculty Search Committee, Neuroscience of Aging/CNS Disease Cluster Hire (2024)  
Faculty-to-Faculty Network Mentoring Program, Office of the Vice President for Diversity, Equity, and Inclusion (OVPDEI), Mentor to Leslie Del Carpio (2024-2025)

#### *University of Memphis*

Faculty Judge, University of Memphis Student Research Forum (2018–2022)  
Teaching & Learning Advisory Committee (TLAC) (2020–2022)  
University Strategic Planning Committee, focus group (2017)  
Van Vleet Doctoral Fellowship Selection Committee (2015)

### **Departmental**

#### *Speech, Language & Hearing Science*

AuD Program Committee (*Program Director*, 2022–present)  
Faculty mentor (Baar, Gustafson, Lulich, Spencer, Rogers, Shrivastav)  
Search & Screen Committee, Clinical Asst. Prof—Audiology (2024-25)  
Search & Screen Committee, ASL lecturer, (2023)  
Search & Screen Committee, TT Assoc/Full Professor, *Chair* (2023-24)  
Personnel Committee (T&P and annual reviews for all junior faculty) (2022-present)  
Governance Document Review Subcommittee (2023)  
PhD Policies Review Subcommittee (2023)

#### *Program in Neuroscience, Cognitive Science*

Tenure & Promotions—Cognitive Science Program (2025)  
PNS Curriculum Committee (2023-present)

#### *University of Memphis*

PhD Program Committee/PhD Coordinator (2012 – 2022; *Chair*: 2018-2022)  
Dean's Advisory Committee (2017-present)  
Curriculum Committee (2020-present)  
Public Information Committee (Website, Visibility, and Social Media) (2015-2022; *Chair*, 2017-18)  
Appointments Committee (*Chair*, 2014-2018, 2019-20)  
Admissions Committee (*ad hoc*, 2016-2022)  
Faculty Search Committee (2017-2018)  
Tenure & Promotions (CSD: 2019, 2020 [x2], 2021; IIS: 2020)  
HIPAA Compliance Committee (2014–2016)  
Library Committee (*Chair*, 2013–2015)  
Website Oversight Committee (2012–2017)  
IIS Strategic Planning Committee (2014–2016)  
CSD Future Planning Task Force Committee (2013 – 2014)  
Audiology Subcommittee (2012–2022)  
SLP Comprehensive Examiner (2012–2017)

### **External Service**

Tenure & Promotion evaluator, University of the Pacific, Audiology (2020)  
Tenure & Promotion evaluator, University of Texas—Austin, Audiology (2023)

### **Review of manuscripts (ad hoc; [Publons Reviewer Profile](#))**

#### AIDS

American Journal of Audiology  
American Journal of Psychology  
Applied Psycholinguistics  
Biomedical Signal Processing & Control  
Brain & Cognition  
Brain & Language  
Brain Research  
Brain Topography  
Cerebral Cortex  
Cognition

#### Cognitive Science

Communications Biology  
Ear & Hearing  
Experimental Brain Research  
European Journal of Neuroscience  
Frontiers in Auditory Cognitive Neuroscience  
Frontiers in Human Neuroscience  
Hearing Research  
Human Brain Mapping  
International Journal of Audiology  
Journal of Cognitive Neuroscience

Journal of Memory and Language  
 Journal of Neuroscience  
 Journal of Neurophysiology  
 J. of Speech, Language, and Hearing Research  
 Journal of the Acoustical Society of America  
 JASA Express Letters  
 JoVE  
 J. Association for Research in Otolaryngology  
 Medical Principles and Practice  
 Memory & Cognition  
 Music Perception  
 Nature Neuroscience  
 Nature Communications

Neurobiology of Aging  
 NeuroImage  
 Neuropsychologia  
 NeuroReport  
 Neuroscience Letters  
 Physiological Research  
 PLoS One  
 Psychological Bulletin  
 Psychology of Music  
 Psychonomic Bulletin & Review  
 Psychophysiology  
 Quarterly Journal of Experimental Psychology  
 Scientific Reports

### **Review of books**

Elsevier (Neuroscience) (2019)  
 Plural Publishing (2020)  
 Oxford University Press (2020)

### **Review of grants**

National Institutes of Health (NIH), NCCIH study section (2023)  
 National Institutes of Health (NIH), AUD study section (2021)  
 National Institutes of Health (NIH), LCOM study section (2018)  
 National Science Foundation (NSF), USA (2014)  
 National Science Foundation (Switzerland) (2016)  
 Fund for Scientific Research-FNRS (F.R.S.-FNRS), Belgium (2025)  
 Novo Nordisk Foundation, Denmark (2017)  
 Binational Science Foundation (BSF) –USA-Israel (2015)  
 Research Grants Council (RGC), China (2015; 2018 x2)  
 University of Texas System (UTS) (2015)  
 Graduate Women in Science, USA (2014)  
 Medical Research Council (MRC), UK (2012)  
 Biotechnology & Biological Sciences Research Council (BBSRC), UK (2014)  
 CSD Faculty Grant Reviewer, University of Memphis (2018, 2019, 2020)

### **Review of scholarships**

American Speech-Language-Hearing Foundation Graduate Student Scholarship (2013)

### **Professional society memberships**

Society for Neuroscience (since 2015)  
 American Speech-Language-Hearing Association (since 2012)  
 Cognitive Neuroscience Society (since 2009)  
 Society for Music Perception and Cognition (since 2009)  
 Association for Research in Otolaryngology (since 2008)  
 Acoustical Society of America (since 2007)

### **Outreach (public talks and presentations)**

1. Bidelman, G. M. (2019). "Brain Benefits of Music: Spotlight on Aging," Taste of Science [<https://tasteofscience.org>] public lecture series, Café Eclectic, Memphis, TN, April 23, 2019.
2. Bidelman, G. M. (2019). "What does a neuroscientist do?" Discussion and demo with Woodland Presbyterian School preschoolers, Memphis, TN, Jan 14, 2019.
3. Bidelman, G. M. (2018). Public CSD Lab Tours, FedEx Institute of Technology and School of Communication Sciences and Disorders, Memphis, TN, July 10, 2018.
4. Bidelman, G. M. (2017). "Brain Benefits of Musical Training," Taste of Science [<https://tasteofscience.org>] public lecture series, Café Eclectic, Memphis, TN, April 27, 2017.

5. Faculty representative. 31st Annual National Conference on Undergraduate Research (NCUR), University of Memphis, Memphis, TN, April 6, 2017.
6. Bidelman, G. M. (2015). STEM Talk: "Music and Language—Effects on the Brain," Oakton Community College, Des Plaines, IL, November 18, 2015.
7. Bidelman, G. M. "Research Partnerships Panel Discussion," College of Arts and Sciences, University of Memphis, November 20, 2014.
8. Bidelman, G. M. "Minimizing Noise-induced Hearing Loss with Musicianship," Public Presentation to the Memphis Chapter of the Recording Academy of America and GRAMMY Foundation Board, Memphis, TN, September 8, 2014.
9. Bidelman, G. M. "Brain correlates of complex human perception and training induced plasticity," Research demo presented at the FedEx Institute of Technology Memphis Research and Innovation Expo, Memphis, TN, September 27, 2012.