

University of Pittsburgh
School of Medicine
CURRICULUM VITAE

BIOGRAPHICAL

Name: Aravindakshan Parthasarathy
Address: Forbes Tower, 5060A
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Pittsburgh PA 15213
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Email: [Aravind Partha@pitt.edu](mailto:Aravind_Partha@pitt.edu)

EDUCATION and TRAINING

UNDERGRADUATE

08/2002 – 05/2007	Birla Institute of Technology and Science, Pilani India	B.E., 2007	Computer Science
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GRADUATE

08/2002 – 05/2007	Birla Institute of Technology and Science, Pilani, India	M.Sc., 2007	Biological Sciences
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08/2007- 02/2013	Purdue University, West Lafayette, IN, USA	Ph.D, 2013	Biological Sciences
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POSTGRADUATE

02/2013 – 08/2014	Purdue University, West Lafayette, IN, USA	Post-Doctoral Fellow	Biomedical Engineering
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09/2014 – 10/2018	Harvard Medical School, Boston, MA, USA	Senior Research Fellow	Dept. of Otolaryngology – Head and Neck Surgery,
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APPOINTMENTS and POSITIONS

ACADEMIC

09/2018 – 08/2020	Dept. of Otolaryngology, Head and Neck Surgery, Harvard Medical School, Boston, MA , USA	Instructor
09/2020 - <i>present</i>	Department of Communication Science and Disorders, University of Pittsburgh, Pittsburgh, PA, USA	Assistant Professor
01/2021 - <i>present</i>	Department of Otolaryngology, University of Pittsburgh, Pittsburgh, PA, USA	Assistant Professor
04/2022 - <i>present</i>	Department of BioEngineering, University of Pittsburgh, Pittsburgh, PA, USA	Assistant Professor

NON-ACADEMIC

10/ 2018 – 08/2020	Eaton-Peabody Labs, Mass. Eye and Ear Infirmary, Boston MA, USA	Investigator
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MEMBERSHIP in PROFESSIONAL and SCIENTIFIC SOCIETIES

<i>Organization</i>	<i>Year</i>
Society for Neuroscience	2008 - present
Association for Research in Otolaryngology	2010- present

HONORS

<i>Title of Award</i>	<i>Year</i>
Institutional Scholarship, BITS Pilani	2004-2006
Second place, Conference Paper presentation, Biology, BITS Pilani	2005
David Ross Fellowship for outstanding incoming students, Purdue University	2008-2009
Travel Scholarship, Aging and Speech Communication Conference	2011
Bilsland Dissertation Fellowship, Purdue University	2012
Travel Scholarship, Aging and Speech Communication Conference	2013

FUNDING

Pending Support:

Binational Science Foundation

“The effects of acute and chronic stress on the induction and manifestation of cochlear synaptopathy”

10/01/22- 09/30/24 (*In Review*)

Direct Costs: \$149,999

Role: PI

Current Support:

NIDCD R21DC018882 (National Institutes of Health)

"Effects of Age-related Cochlear Synaptopathy on Speech-in-noise Intelligibility: A Cross-species Approach"

3/1/22 - 2/30/25

Direct Costs: \$375,000

Role: PI

DoD W81XWH2110602 (Department of Defense)

"Rapid Triage to Dissociate Peripheral and Central Auditory Effects Using Objective Electrophysiological Measures in Rodents and Humans"

9/1/21 - 8/30/23 (Awarded)

Direct Costs: \$332,367

Role: Co-I (PI: Bartlett)

Competitive Medical Research Fund (University of Pittsburgh)

"Effects of age-related cochlear synaptopathy on the neural coding of stimulus temporal fine structure"

7/1/21 - 6/30/23 (Active)

Direct Costs: \$25,000

Role: PI

PNC-Trees Charitable Trust

"Assessing Communication Disorders Across the Lifespan Using Neuroimaging Technology"

The goal of this study is to non-invasively assess brain structure and function in individuals with communication disorders.

7/1/20 - 6/30/22 (Active)

Direct Costs: \$500,000

Role: Co-I (PI: Chandrasekaran)

PUBLICATIONS

ORIGINAL PEER REVIEWED ARTICLES

1. **Parthasarathy A**, Cunningham PA, Bartlett EL. "Age-related differences in auditory processing as assessed by amplitude-modulation following responses in quiet and in noise" *Front Aging Neurosci*. 2010 Dec 17;2:152. doi: 10.3389/fnagi.2010.00152. PMID: 21188162
2. **Parthasarathy A**, Bartlett EL. "Age-related auditory deficits in temporal processing in F-344 rats." *Neuroscience*. 2011 Sep 29; 192:619-30. PMID: 21723376
3. **Parthasarathy A**, Bartlett EL. "Two-channel recording of auditory-evoked potentials to detect age-related deficits in temporal processing". *Hear Res*. 2012 Jul;289(1-2):52-62. PMID: 22560961
4. Rabang CF*, **Parthasarathy A***, Venkataraman Y, Fisher ZL, Gardner SM, Bartlett EL. "A computational model of inferior colliculus responses to amplitude modulated sounds in young and aged rats". *Front Neural Circuits*. 2012 Nov 2;6:77. PMID: 23129994 (*shared

first author)

5. **Parthasarathy A**, Datta J, Luna-Torres JA, Hopkins C, Bartlett EL. "Age-related changes in the relationship between auditory brainstem responses and envelope following responses". *J Assoc Res Otolaryngol*. 2014 Aug;15(4):649-61. PMID: 24845405
6. Herrmann B, **Parthasarathy A**, Han E, Obleser J, Bartlett EL. "Sensitivity of rat inferior colliculus neurons to frequency distributions" *J Neurophysiol*. 2015 Nov;114(5):2941-54. PMID: 26354316
 - Contribution – Primary data collection, manuscript preparation
7. **Parthasarathy A**, Lai J, Bartlett EL. "Age-related changes in processing simultaneous amplitude modulated sounds assessed using envelope following responses" *J Assoc Res Otolaryngol*. 2016 Apr;17(2):119-32. PMID: 26905273
8. Coventry BS, **Parthasarathy A**, Sommer AL, Bartlett EL. "Hierarchical Winner-Take-All Particle Swarm Optimization social network for neural model fitting" *J Comput Neurosci*. 2017 Feb;42(1):71-85. PMID: 27726048
 - Contribution – Primary data collection
9. Herrmann B, **Parthasarathy A**, Bartlett EL. "Aging affects dual encoding of periodicity and envelope shape in rat inferior colliculus neurons" *Eur J Neurosci*. 2017 Jan;45(2):299-311. PMID: 27813207
 - Contribution – Primary data collection, manuscript preparation
10. **Parthasarathy A**, Kujawa SG. "Synaptopathy in the aging cochlea: Characterizing early-neural deficits in auditory temporal envelope processing" *J Neurosci*. 2018 Aug 8;38(32):7108-7119. PMID: 29976623
11. **Parthasarathy A**, Herrmann B, Bartlett EL. "Aging alters envelope representations of speech-like sounds in the inferior colliculus." *Neurobiol Aging*. 2019 Jan;73:30-40. PMID: 30316050
12. **Parthasarathy A**, Hancock KE, Bennett K, DeGruttola V, Polley DB. "Bottom-up and top-down neural signatures of disordered multi-talker speech perception in adults with normal hearing" *Elife*. 2020 Jan 21;9:e51419. PMID: 31961322
13. Lewis RM, Jahn KN, **Parthasarathy A**, Goedicke WB, Polley DB. "Audiometric Predictors of Bothersome Tinnitus in a Large Clinical Cohort of Adults with Sensorineural Hearing Loss" *Otol Neurotol*. 2020 Apr;41(4):e414-e421. PMID: 32176119
 - Contributions – Data collection support, database management, manuscript preparation
14. **Parthasarathy A**, Pinto SR, Lewis RM, Goedicke WB, Polley DB. "Data-driven segmentation of audiometric phenotypes across a large clinical cohort" *Sci Rep*. 2020 Apr 21;10(1):6704. PMID: 32317648
15. Chen JX, Whitton JP, **Parthasarathy A**, Hancock KE, Polley DB. "Fluctuations in Subjective Tinnitus Ratings Over Time: Implications for Clinical Research" *Otol Neurotol*. 2020 Oct;41(9):e1167-e1173. PMID: 32925865
 - Contributions – Data analysis, programming support
16. Okada M, **Parthasarathy A**, Welling BD, Liberman MC, Maison SF. "Idiopathic Sudden Sensorineural Hearing Loss: Speech Intelligibility Deficits Following Threshold Recovery" *Ear Hear*. 2020 Nov 30. PMID: 33259444
 - Contributions – Data analysis, programming support, manuscript preparation

OTHER PEER REVIEWED PUBLICATIONS

1. **Parthasarathy A**, Bartlett EL, Kujawa SG. "Age-related changes in neural coding of envelope cues: peripheral declines and central compensation". *Neuroscience*. 2019 May 21;407:21-31. **(Review article)**

CONFERENCE ABSTRACTS AND POSTERS

1. **Parthasarathy A**, Cunningham P.A, Bartlett E.L, "Auditory processing in normal versus aged animals assessed at the population level under challenging listening conditions " *Society for Neuroscience* annual meeting, San Diego 2010
2. **Parthasarathy A**, Cunningham P.A, Bartlett E.L, "Age-related changes in auditory processing of modulation waveforms assessed at the population level " Midwinter meeting, *Association of Research in Otolaryngology* (ARO), Baltimore 2011
3. Evenson C, **Parthasarathy A**, Bartlett E.L, "Effects of the volatile anesthetic isoflurane compared to the sedative Domitor on envelope following responses in young and aged animals" *Aging and Speech communication conference*, Bloomington 2011
4. **Parthasarathy A**, Bartlett E.L, "Age related changes in auditory processing of speech- like stimuli assessed at the population level" *Aging and Speech communication conference*, Bloomington 2011
5. Gardner S, Fisher Z, **Parthasarathy A**, Bartlett E.L, "Markers of inhibitory and excitatory synaptic function and their relationship to auditory evoked responses in young and aged animals" *Aging and Speech communication conference*, Bloomington 2011
6. **Parthasarathy A**, Gardner S.M, Bartlett E.L, "Multi-level analysis of age-related declines in auditory temporal processing", Mid-winter meeting of *The Association of Research in Otolaryngology* (ARO), San Diego, 2012
7. **Parthasarathy A**, Bartlett E.L, "Age-related changes in auditory processing of speech- like stimuli assessed at population and cellular levels", Annual meeting of the *Society for Neuroscience*, and *Advancements and perspectives in auditory neurophysiology* (APAN), New Orleans, 2012
8. **Parthasarathy A**, Lai J, Bartlett E.L, "Age-related changes in the neural population representation of amplitude modulation in the presence of overlapping maskers", Mid-winter meeting of *The Association of Research in Otolaryngology* (ARO), Baltimore, 2013
9. Coventry B, Han E, **Parthasarathy A**, Bartlett E.L, "A Study of Age Related Changes in Frequency Tuning and Synaptic Noise in the Inferior Colliculus: Recreating In Vivo Responses Using a Computational Model", *Aging and Speech Communication conference*, IU Bloomington, 2013
10. Coventry B, Han E, **Parthasarathy A**, Bartlett E.L, "In Vivo and Modeling Study of Age Related Changes in Frequency Tuning and Spontaneous Activity in the Inferior Colliculus, Mid-winter meeting of the *Association of Research in Otolaryngology* (ARO), Baltimore, 2014
11. **Parthasarathy A**, Bartlett E.L, "Age-related changes in the transformation of responses to amplitude modulated sounds in the inferior colliculus", Annual meeting of the *Society for Neuroscience*, Washington D.C, 2014.
12. Coventry B.S, **Parthasarathy A**, Bartlett E.L, "Swarm intelligence meets the brain: Estimating cellular parameters related to auditory processing in young and aged rats

- using particle swarm optimization”, Annual meeting of the *Society for Neuroscience*, Chicago, 2015
13. Sovrens C.S, **Parthasarathy A**, Bartlett E.L “Representations of voice onset timing cues in the inferior colliculus of young and aged rats”, Annual meeting of the *Society for Neuroscience*, Chicago, 2015
 14. **Parthasarathy A**, Whitton J.P, Hancock K.E, Polley D.B “Psychophysical and electrophysiological measures of temporal fine structure processing in normal-hearing listeners”, *Gordon Research Conference on Plastic and Dynamic Auditory Systems*, Lewiston, 2016
 15. Han E.X, **Parthasarathy A**, Bartlett E.L “Response profiles of inferior colliculus neurons in young and old rats”, Annual meeting of the *Society for Neuroscience*, San Diego, 2016
 16. Encina-Llamas G, **Parthasarathy A**, Harte JM, Dau T, Kujawa SG, Shin-Cunningham BG, Epp B “Hidden Hearing Loss with Envelope Following Responses (EFR): The Off-frequency Problem”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, Baltimore, 2017
 17. **Parthasarathy A**, Encina-Llamas G, Shin-Cunningham BG, Kujawa SG “Temporal Processing Deficits Due to Noise-induced Synaptopathy Studied Using Envelope Following Responses”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, Baltimore, 2017
 18. **Parthasarathy A**, Smith EY, Kujawa SG “Temporal Processing Deficits in Age-related Cochlear Synaptopathy”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, Baltimore, 2017
 19. **Parthasarathy A**, Whitton JP, Hancock KE, Polley DB “Psychophysical and Electrophysiological Measures of Temporal Fine Structure Processing in Normal-hearing Listeners”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, Baltimore, 2017
 20. **Parthasarathy A**, Hancock KE, Polley DB “Neural and perceptual signatures of temporal fine structure processing underlying speech-in-noise intelligibility”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, San Diego, 2018
 21. Chen JX, Whitton JP, **Parthasarathy A**, Hancock KE, Polley DB “Audiometric Characteristics of Blast and Non-blast Patients with Chronic Subjective Tinnitus”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, Baltimore 2019
 22. Lewis RM, **Parthasarathy A**, Polley DB “Audiological Predictors of Tinnitus in Patients at Massachusetts Eye and Ear”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, Baltimore 2019
 23. **Parthasarathy A**, Hancock KE, Polley, DB “From temporal fine structure to patterned motifs: a multiplexing strategy to study contextual modulation of auditory temporal processing in humans”, *Advancements and Perspectives in Auditory Neurophysiology (APAN)*, 2020 (remote).
 24. McGill M, Hight AE, Watanabe Y, Cai D, Clayton KK, **Parthasarathy A**, Polley DB “Cortical Changes Underlying Perceptual Hypersensitivity”, *Advancements and Perspectives in Auditory Neurophysiology (APAN)*, 2020 (remote)
 25. McGill M, Hight AE, Watanabe Y, Cai D, Clayton KK, **Parthasarathy A**, Polley DB “Ensemble Signatures of Cortical Hyperactivity at Cellular Scale”, *Advancements and Perspectives in*

- Auditory Neurophysiology (APAN)*, 2021 (remote)
26. McGill M, Hight AE, Watanabe Y, Cai D, Clayton KK, **Parthasarathy A**, Polley DB “Ensemble and Cellular Signatures of Cortical Hyperactivity Following Acoustic Trauma”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, San Jose, 2022
 27. Victoria E. Cancel, Jacie R. McHaney, Virginia Milne, Catherine Palmer, **Aravindakshan Parthasarathy** “Hearing Difficulties with Normal Audiograms: Insights from the APD Test Battery”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, San Jose, 2022
 28. Jacie R. McHaney, Kenneth E. Hancock, Daniel B. Polley, **Aravindakshan Parthasarathy** “Neurophysiological markers of central gain and their relationship to speech-in-noise intelligibility”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, San Jose, 2022
 29. G. Nike Gnanateja, Tera Quigley, Golbarg Mehraei, Erik Larsen, Jonathon Whitton, Bharath Chandrasekaran, **Aravindakshan Parthasarathy**, “Middle Ear Muscle Reflexes are Potential Biomarkers of Peripheral Neural Dysfunction in Individuals with Chronic Tinnitus”, Mid-winter meeting of the *Association of Research in Otolaryngology (ARO)*, San Jose, 2022
 30. **Parthasarathy A**, Grant KJ, Freitas ME, Caswell-Midwinter B, Polley DB, Liberman MC, Maison SF, “Speech intelligibility deficits in Sensorineural Hearing Loss of Differing Etiologies”, Annual Scientific and Technology Conference of the American Auditory Society, Scottsdale, 2022
 31. Grant KJ, **Parthasarathy A**, Vasilkov V, Polley DB, Liberman MC, Maison SF “Assessing Neural Deficits in Patients with Sensorineural Hearing Loss”, Annual Scientific and Technology Conference of the American Auditory Society, Scottsdale, 2022
 32. Victoria E. Cancel, Jacie R. McHaney, Virginia Milne, Catherine Palmer, **Aravindakshan Parthasarathy** “Hearing Difficulties with Normal Audiograms: Insights from the APD Test Battery”, Annual meeting of the American Academy of Audiology, St. Louis, 2022

PROFESSIONAL ACTIVITIES

TEACHING

Student Teaching:

2007, (<i>Spring semester</i>)	Human Anatomy and Physiology BIOL203- nursing students, Total class size – 65/term	Purdue University, Teaching Assistant, 8 hours/week/semester
2008, 2010, 2012, (<i>Fall semester</i>)	Human Anatomy and Physiology BIOL204- nursing students, Total class size – 65/term	Purdue University, Teaching Assistant, 8 hours/week/semester

2009, 2010, 2011 <i>(Fall semester)</i>	Lab in Neurophysiology BIOL 542N – senior undergraduate and graduate students, Total class size – 8/term	Purdue University, Teaching Assistant, 20 hours/week for 6 weeks/semester
2021 <i>(Spring semester)</i>	Advanced physiological assessment CSD 2214 – Audiology graduate students, Total class size – 12	University of Pittsburgh, Instructor, 3 hours/week/semester
2022 <i>(Fall semester)</i>	Ph.D. Seminar in Audiology CSD 2221 – Communication Science and Disorders graduate students, Total class size – 5	University of Pittsburgh, Instructor, 3 hours/week/semester
2022 <i>(Spring semester)</i>	Advanced physiological assessment CSD 2224 – Audiology graduate students, Total class size – 10	University of Pittsburgh, Instructor, 3 hours/week/semester

Mentoring:

2008-2010	Paul Cunningham Career stage: Undergraduate biomedical engineering student. Mentoring Role: Research supervisor. Accomplishments: Co–author on one peer reviewed research article, and two poster presentations at national conferences
2010-2011	Chris Evenson Career stage: Undergraduate pre-medical student. Mentoring Role: Research supervisor. Accomplishments: Co–author on one poster presentation at a national conference
2012-2014	Jesyin Lai Career stage: Graduate student. Mentoring Role: Research trainer. Accomplishments: Co–author on one peer reviewed research article, and two poster presentations at regional conferences
2013	Charneka L Hopkins Career stage: Undergraduate summer intern. Mentoring Role: Research supervisor. Accomplishments: Co–author on one peer reviewed research article, and two poster presentations at regional conferences
2013	Julie Ann Luna Torres

- Career stage: Undergraduate summer intern. Mentoring Role: Research supervisor. Accomplishments: Co–author on one peer reviewed research article, and two poster presentations at regional conferences
- 2013-2014 Emily X Han
 Career stage: Graduate student. Mentoring Role: Research supervisor. Accomplishments: Co–author on one poster presentation at a national conference
- 2017 Jared Hill
 Career stage: Undergraduate summer intern. Mentoring Role: Research supervisor. Accomplishments: Development of a graphical user interface to search the Mass Eye and Ear clinical audiology database and access patient records, which is currently being used by multiple otolaryngology research groups at Mass. Eye and Ear.
- 2020 Weston Enterline
 Career stage: Graduate Student, Audiology. Mentoring Role: Graduate Mentor. Accomplishments: “Interactions between overt hearing loss and hidden neural loss as assessed by existing clinical markers”, Graduate research poster.
- 2020-present Victoria Cancel
 Career stage: Graduate Student, Audiology. Mentoring Role: Graduate Mentor. Accomplishments: Studied patterns of Auditory Processing Disorders and clinical indicators of cochlear synaptopathy for graduate research project. Presented two posters, at the midwinter meeting of ARO and the annual meeting of AAA. Won the James and Susan Jerger Award for Excellence in Student Research at the annual AAA meeting 2022.
- 2020-present Jacie McHaney
 Career stage: Graduate Student, Communication Science and Disorders. Mentoring Role: Research supervisor. Accomplishments: Currently studying interactions between cognitive effort and neural coding for speech intelligibility, for graduate research project. Presented a poster at the midwinter meeting of ARO.
- 2021-present Kimberly Yurasits
 Career stage: Graduate Student, Audiology. Mentoring Role: Graduate Mentor. Accomplishments: Currently studying role of peripheral and central auditory

pathway in age-related deficits representing temporal envelope cues, for graduate research project.

2021-present Maggie Zink
Career stage: Graduate Student, Communication Science and Disorders. Mentoring Role: Graduate Advisor. Accomplishments: Currently studying interactions between cognitive effort and neural coding for speech intelligibility, for graduate research project.

2021-present Claire Mitchell
Career stage: Undergraduate Student, Communication Science and Disorders. Mentoring Role: Research Advisor. Accomplishments: Currently studying role of peripheral and central auditory pathway in age-related deficits representing temporal envelope cues. Awarded the McMurtry Family Undergraduate Research Award in 2022 for project titled “Development of an objective electrophysiological diagnostic test to characterize early-onset effects of Alzheimer’s Disease using auditory temporal processing”.

2021-present Mayan Gershon-Harris
Career stage: Highschool Student, Taylor-Allderdice High School. Mentoring Role: Research Advisor. Accomplishments: Comparative assessment of objective hearing thresholds obtained using phasic and sustained auditory evoked potentials, for high school Research Rotation class. Presented posters at multiple regional high school science fairs. Won First place in “Best Presentation” category at Taylor Allderdice High School poster presentation competition for poster titled “Objective Measures of Hearing Thresholds”.

2021-present Elizabeth Hary
Career stage: Graduate Student. Mentoring Role: PhD planning committee.

2022-present Vishal Bandaru
Career stage: Undergraduate Student. Mentoring Role: Research Advisor. Accomplishments: Currently studying role of peripheral and central auditory pathway in age-related deficits representing temporal envelope cues, as a research rotation.

RESEARCH

Ad hoc Reviewer

Communications Biology
Ear and Hearing
Journal of Neurophysiology
Journal of the Association for Research in Otolaryngology
Neurobiology of Aging
Hearing Research
Scientific Reports
Journal of the Acoustical Society of America
Trends in Hearing
Frontiers in Cellular Neuroscience
International Journal of Audiology
International Journal of Developmental Neuroscience

Other Editorial Roles

2016-	Review Editor	Frontiers in Neuroscience
2016-	Review Editor	Frontiers in Psychology
2019-	Review Editor	Frontiers in Human Neuroscience

LIST OF CURRENT RESEARCH INTERESTS

I am interested in understanding how changes in the peripheral auditory system and in central auditory pathways contribute to various forms of hearing loss. My skill set and experience make me one of few people in the field of hearing research to assess hearing function in animal models and in human clinical populations, with non-invasive electrophysiological measurements forming the translational bridge between the two. I am in a unique position to study the entire auditory pathway, from synaptic elements in the cochlea to neural deficits in the cortex, in humans and in animal models. This will be particularly insightful for studying complex process like aging and noise trauma, whose effects manifest in a systemic way and is not limited to a particular region of the auditory pathway. I believe this will help me make significant contributions to our understanding of changes in hearing due to acoustic trauma and its interactions with various pathologies associated with the aging process.

INVITED SEMINARS AND LECTURESHIPS

Local Presentations

2013	“Using Frequency following responses to examine age-related changes in auditory temporal processing” (Invited lecture) Seminars in Hearing Research, Purdue University, West Lafayette IN
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- 2013 “Relationship between frequency following responses and other measures of auditory function in an animal model of aging” (Invited lecture)
Seminars in Hearing Research, Purdue University, West Lafayette IN
- 2013 “Age-related changes in the neural encoding of sounds in the auditory pathway” (Invited lecture)
Biological Sciences departmental retreat, Plymouth IN
- 2014 “Age-related changes in the representation of simultaneous amplitude-modulated tones in the auditory brainstem and midbrain” (Invited lecture)
Seminars in Hearing Research, Purdue University, West Lafayette, IN,
- 2014 “Separating the contributions of the peripheral and central auditory system to age-related deficits in temporal processing” (Invited lecture)
Massachusetts Eye and Ear Infirmary, Harvard Medical School, Boston MA
- 2020 “A cross-species approach for studying markers and mechanisms of speech intelligibility” (Grand Rounds)
University of Pittsburgh, Pittsburgh PA
- 2021 “A cross-species approach for studying markers and mechanisms of speech intelligibility” (Research Round Table, Communication Science and Disorders)
University of Pittsburgh, Pittsburgh PA
- 2021 “A cross-species approach for studying markers and mechanisms of speech intelligibility” (T32 seminar)
University of Pittsburgh, Pittsburgh PA
- 2021 “A Cross-Species Approach to Understanding the Physiological Mechanisms of Age-related Hearing Loss” Aging Institute, University of Pittsburgh, Pittsburgh PA

Regional

- 2013 “Using Frequency following responses to examine age-related changes in auditory temporal processing” (Invited lecture)
University of Illinois at Urbana-Champaign, Urbana- Champaign IL
- 2013 “Age-related changes in the neural encoding of sounds in the auditory pathway” (Invited lecture)
Neuroscience division, Eli Lilly, Indianapolis IN
- 2017 “Age-related changes in neural coding of envelope cues: peripheral declines and central compensation” (Invited lecture)
Workshop on Synaptopathy, Boston University, Boston MA,
- 2018 “Using Envelope following responses to assess auditory temporal processing” (Invited lecture)
AKOUOS, Boston MA
- 2019 “Age-related changes in neural coding of envelope cues: peripheral declines and central compensation” (Invited lecture)

University of Pittsburgh, Pittsburgh PA

National/International

- 2013 “Relationship between frequency following responses and other measures of auditory function in an animal model of aging” (selected oral abstract)
Aging and Speech Communication conference, Indiana University, Bloomington IN, October 2013
- 2014 “Relationship between frequency following responses and other measures of auditory function in an animal model of aging” (selected oral abstract)
Midwinter meeting of the Association for Research in Otolaryngology (ARO), San Diego CA
- 2017 “Age-related changes in neural coding of envelope cues: peripheral declines and central compensation” (Invited lecture)
Aging and Speech Communication Conference, University of Southern Florida, Tampa FL
- 2018 “Exaggerated temporal processing deficits as animals age after synaptopathic noise” (selected oral abstract)
Midwinter meeting of the Association for Research in Otolaryngology (ARO), San Diego CA
- 2019 “Age-related changes in neural coding of envelope cues: peripheral declines and central compensation” (Invited lecture)
Midwinter meeting of the Association for Research in Otolaryngology (ARO), Baltimore MD
- 2019 “Individual variability in temporal fine structure processing underlying speech-in-noise intelligibility in listeners with “normal” audiograms” (selected oral abstract)
Midwinter meeting of the Association for Research in Otolaryngology (ARO), Baltimore MD
- 2021 “A cross-species approach for studying markers and mechanisms of speech intelligibility”
Electronic Auditory Research Seminar series (E.A.R.S)

SERVICE

University and Medical School Service

- 2020 - present SHRS Academic Integrity Board - Graduate
- 2020 – present Audiology graduate program admissions committee member.
- 2020 – present Audiology graduate program 4th year comprehensive exams committee member.

- 2020 Research Round Table faculty panel on post-doctoral searches
- 2021 Research Round Table faculty panel on transitioning to an academic position
- 2021 Audrey Holland Endowed Student Research Award Review Committee
- 2022 Audiology graduate program 2nd year comprehensive exams committee
- Professional Society Service
- 2021 Faculty panel on transitioning to a career in academia, Association for Research in otolaryngology (ARO) midwinter meeting (*remote*)