

Joel I. Berger

Work e-mail: joel-berger@uiowa.edu
Permanent e-mail: joelbergerphd@gmail.com
LinkedIn: <https://www.linkedin.com/in/joel-berger-b1821999/>
Google Scholar: <https://scholar.google.com/citations?user=jPY8mMAAAAJ&hl=en>

WORK EXPERIENCE

Assistant Professor (Research), Dept. of Neurosurgery, University of Iowa 2024 – present
Primary focus on human intracranial electroencephalography (iEEG) recordings, both single neuron and local field potentials, as well as fMRI and source-localized EEG. Specific topics include auditory working memory, misophonia, cochlear implants and speech production.

Associate Research Scientist, University of Iowa, USA 2021 – 2024
Grant preparation, paper writing and strengthening collaborations with faculty at Iowa and other Universities. Developing experimental paradigms and designing analyses to perform varied research using human single neurons, iEEG, source-localized scalp EEG, PET imaging with cochlear implantees and behavioral studies. Spike sorting of various high impedance datasets, preparing electrodes for implantation in OR and assisting with other neurosurgical data. Previously Assistant Research Scientist until 2023.

Postdoctoral Research Scholar, University of Iowa, USA 2019 – 2021
Utilized human intracranial electrodes, source-localized EEG and PET imaging to explore various aspects of auditory perception.

Technical Consultant, University of Nottingham, UK 2018
Consulted on a behavioral model for tinnitus and assisted with experimental setup.

Postdoctoral Research Scientist, MRC Institute of Hearing Research, UK 2013-2018
Developed an awake, chronically-implanted animal model of tinnitus. Examined electromyography with human subjects to develop an objective test of tinnitus.

EDUCATION

PhD in Neuroscience, University of Nottingham, UK 2010 – 2014
Thesis title: Behavioural and neural correlates of tinnitus
Advisors: Prof AR Palmer and Dr MN Wallace

BSc (Highest Hons - 1st Class) in Psychology, University of Lincoln, UK
Thesis title: Association between obsessive-compulsiveness and cognitive dissonance
Advisor: Dr B Swallow

2005 – 2008

TECHNICAL SKILLS/INTERESTS

Analysis: MATLAB, Python, Functional connectivity, Machine learning, Motion tracking analyses, Statistics, Spike sorting
Techniques: Electrophysiology, Electromyography, EEG, Neuroimaging, PET, Single neuron recording
Interests: Auditory perception, Behavioral processing, Cochlear implants, Misophonia, Tinnitus, Working memory

GRANTS/AWARDS

- NSF/BBSRC (**Research Co-I**) - \$999,440 2024
“Neural mechanisms for auditory memory sequencing and prediction”
- Misophonia Research Fund (**Co-Principal Investigator [Co-PI]**) - \$483,905 2023
“Novel investigation of brain mechanisms for different triggers in misophonia”
- Iowa Neuroscience Institute (INI) Accelerator Grant (**Co-Investigator [Co-I]**) - \$50,000 2022
“Precision optical modulation of neuronal circuits in the human brain”
- Pappajohn Biomedical Institute Microfinance Grant (**Co-PI**) - \$2373 2022
“Development of a system for naturalistic stimulus presentation in intracranial patients”
- NIH U01 (**Co-I on subaward**) - \$899,808 2021
“Decoding and Selective Modulation of Human Memory During Awake/Sleep Cycles”
- Pappajohn Biomedical Institute Microfinance Grant (**Co-PI**) - \$3000 2021
“Examining a link between misophonia and empathy”
- Marie and Jack Shapiro Prize – nominated 2021
- Iowa Institute of Neuroscience Barrier Buster Grant (**Co-PI**) - \$1318 2020
“Examining the neural mechanisms underlying speech-in-noise perception and its improvement with haptic feedback”
- Association for Research in Otolaryngology Virtual Midwinter Meeting Award 2020
- Midwest Auditory Symposium Travel Award - \$300 2019
- International Hearing Loss Conference Travel Award - \$600 2019
- Marie and Jack Shapiro Prize – nominated 2015
- Guarantors of Brain Travel Award - £750 2014
- Marie and Jack Shapiro Prize – nominated 2014
- British Tinnitus Association Travel Award - £500 2013
- Guarantors of Brain Travel Award - £750 2013
- BSA Poster Prize - £100 2011
- Guarantors of Brain Travel Award - £750 2011
- Deafness Research UK Travel Award - £500 2011
- Deafness Research UK Summer Scholarship - £2000 2010

SUBMITTED GRANTS:

- MRC (Project Co-Lead) - £1,935,875 2024
“The hearing hippocampus”
- NIH NIDCD R-21 (PI) - \$275,000 (in revision) 2023
“The specific role of subthalamic nucleus and prefrontal cortex in neurocognitive mechanisms of speech production”

GRANTS NOT AWARDED:

- NIH R-61 (Subaward PI) - \$152,000 2023
“The neural dynamics of auditory and linguistic microcircuits: from single-neuron spiking to population codes”
- RNID Discovery Research Grant (Co-I) - \$212,000 2023
“Amitriptyline treatment in acute vs. chronic tinnitus”
- Misophonia Research Fund 2022
“Novel investigation of brain mechanisms in misophonia: A role for the mirror neuron system”

PUBLICATIONS

* Denotes joint first authors

+ Denotes joint senior authors

JOURNAL ARTICLES UNDER REVIEW/IN REVISION

1. Guo X*, Benzaquen E*, McMurray B, **Berger JI**⁺, Griffiths TD⁺ (under review) British version of the Iowa test of consonant perception. *Ear Hear.*
2. Johari K, **Berger JI**, Rohl A, Greenlee JD (under review) Dissociation Between Simple and Complex Speech Motor Tasks Within Bilateral Motor Thalamus. *eNeuro.*

PEER-REVIEWED PUBLISHED JOURNAL ARTICLES

1. **Berger JI**, Gander PE, Kumar S (accepted) A social cognition perspective on misophonia. *Philosophical Transactions of the Royal Society B.* <http://doi.org/10.31234/osf.io/mb7dz>
2. Trapp NT, Tsang EW, Bruss J, Russo S, Gander PE, **Berger JI**, Nourski KV, Rosanova M, Keller CJ, Oya H, Howard MA, Boes AD (2024) TMS-associated auditory evoked potentials can be effectively masked: Evidence from intracranial EEG. *Brain Stimulation* 17(3): 616-618. <http://doi.org/10.1016/j.brs.2024.05.002>
3. Tabari F, **Berger JI**, Flouty O, Copeland B, Greenlee JD, Johari K (2024) Speech, Voice, and Language Outcomes Following Deep Brain Stimulation: A Systematic Review. *PLoS One* 19(5): e0302739. <https://doi.org/10.1371/journal.pone.0302739>
4. **Berger JI**, Billig AJ, Kumar S, Sedley W, Griffiths TD, Gander PE (2024) What is the role of the hippocampus in the persistence of tinnitus? *Human Brain Mapping* 45(3): e26627. <https://doi.org/10.1002/hbm.26627>
5. Johari K, **Berger JI** (2024) Theta Oscillations within Right Dorsolateral Prefrontal Cortex Contribute Differently to Speech vs. Limb Inhibition: An HD-tDCS/EEG study. *J Neurosci Res* 102:2, e25298. <https://doi.org/10.1002/jnr.25298>

6. Ash PA, Benzaquen E, Gander PE, **Berger JI**, Kumar S (2024) Mimicry in misophonia: A large-scale survey of prevalence and relationship with trigger sounds. *J Clin Psychol* 80(1): 186-197. <https://doi.org/10.1002/jclp.23605>
7. Nourski KV*, Steinschneider M*, Rhone AE, **Berger JI**, Dappen ER, Kawasaki H, Howard MA (2024) Intracranial electrophysiology of spectrally degraded speech in the human cortex. *Front Human Neurosci* 17. <https://doi.org/10.3389/fnhum.2023.1334742>
8. Choi I, Gander PE, **Berger JI**, Woo J, Choy M, Hong J, Colby S, McMurray B, Griffiths TD (2023) Spectral grouping of electrically encoded sound predicts speech-in-noise performance in cochlear implantees. *Journal of the Association for Research in Otolaryngology (JARO)* 24(6): 607–617. <https://doi.org/10.1007/s10162-023-00918-x>
9. Kocsis Z, Jenison RL, Cope TE, Taylor PN, Calmus RM, McMurray B, Rhone AE, Sarrett ME, Kikuchi Y, Gander PE, **Berger JI**, Kovach CK, Choi I, Greenlee JD, Kawasaki H, Griffiths TD, Howard MA, Petkov CI (2023) Immediate causal impact of disconnecting a neural hub in the human brain. *Nature Commun* 14, 6264. <https://doi.org/10.1038/s41467-023-42088-7>
10. **Berger JI**, Gander PE, Kikuchi Y, Petkov CI, Kumar S, Kovach CK, Oya H, Kawasaki H, Howard MA, Griffiths TD (2023) Distribution of multiunit pitch responses recorded intracranially from human auditory cortex. *Cereb Cortex* 33(14), 9105–9116. <https://doi.org/10.1093/cercor/bhad186>
11. **Berger JI**, Gander PE, Kim S, Schwalje A, Woo J, Na Y, Holmes A, Hong J, Dunn C, Hansen M, Gantz B, McMurray B, Griffiths TD, Choi I (2023) Neural correlates of individual differences in speech-in-noise performance in a large cohort of cochlear implant users. *Ear Hear Epub ahead of print*. PMID: 37144890. <https://doi.org/10.1097/AUD.0000000000001357>
12. Johari K, **Berger JI** (2023). High-definition transcranial direct current stimulation over right dorsolateral prefrontal cortex differentially modulates inhibitory mechanisms for speech vs. limb movement. *Psychophysiology* 60, e14289. <https://doi.org/10.1111/psyp.14289>
13. Hindman BJ, Gold CJ, Ray E, Wendt LH, Ten Eyck P, **Berger JI**, Olinger CR, Banks MI, Sanders RD, Howard MA, Woodroffe RW (2023) Surgeon-specific treatment selection bias and heterogeneous perioperative practices in an observational spine surgery study. A statistical tutorial with implications for analysis of observational studies of perioperative interventions. *World Neurosurg Epub ahead of print*. PMID: 36773808. <https://doi.org/10.1016/j.wneu.2023.02.027>
14. Johari K*, Kelley R*, Tjaden K, Patterson CG, Rohl AH, **Berger JI**, Corcos DM, Greenlee JDW (2023) Human STN Neurons Differentially Encode Speech and Limb Movement. *Front Human Neurosci* 17:962909. <https://doi.org/10.3389/fnhum.2023.962909>
15. Fawcett TJ, Longenecker RJ, Brunelle DL, **Berger JI**, Wallace MN, Galazyuk A, Rosen M, Salvi R, Walton JP (2023) Universal Automated Classification of the Acoustic Startle Reflex with Machine Learning. *Hear Res* 428: 108667. <https://doi.org/10.1016/j.heares.2022.108667>
16. Cole RC, Espinoza AI, Singh A, **Berger JI**, Cavanagh J, Greenlee JDW, Narayanan N (2023) Novelty-induced frontal-STN networks in Parkinson's disease. *Cereb Cortex* 33(2), 469-485. <https://doi.org/10.1093/cercor/bhac078>
17. **Berger JI**, Johari K, Kovach CK, Greenlee JDW (2022) Speech artifact is also present in spike data. *NeuroImage* 263: 119642. <https://doi.org/10.1016/j.neuroimage.2022.119642>
18. Gold C, Ray E, Christianson D, Park B, Kournoutas IA, Kahn TA, Perez EA, **Berger JI**, Sander K, Igram CA, Pugely A, Olinger CR, Carnahan R, Chen P, Mueller R, Hitchon P, Howard MA, Banks M, Sanders R, Woodroffe RW (2022) Risk Factors for Delirium in Elderly Lumbar Spinal Fusion Patients. *Clinical Neurology and Neurosurgery* S0303-8467(22)00199-8. <https://doi.org/10.1016/j.clineuro.2022.107318>

19. Geller J, Holmes A, Schwalje A, **Berger JI**, Gander PE, Choi I, McMurray B (2021) Validating the Iowa Test of Consonant Perception. *J Acoust Soc Am* 150(3): 2131. <https://doi.org/10.1121/10.0006246>
20. Wallace MN, Sumner CJ, **Berger JI**, McNaughton PA, Palmer AR (2021) Salicylate changes the spontaneous firing rate of guinea pig auditory nerve fibres. *Neurosci Lett* 747, 135705. <https://doi.org/10.1016/j.neulet.2021.135705>
21. Kumar S*, Gander PE*, **Berger JI***, Billig AJ, Nourski KV, Oya H, Kawasaki H, Howard MA, Griffiths TD (2021) Oscillatory correlates of auditory working memory examined with human electrocorticography. *Neuropsychologia* 150, 107691. <https://doi.org/10.1016/j.neuropsychologia.2020.107691>
22. Wilson CA, **Berger JI**, de Boer J, Sereda M, Palmer AR, Hall DA, Wallace MN (2020) Using gap-induced inhibition of the post-auricular muscle response as an objective measure of tinnitus in humans. *Acta Scientific Otolaryngology* 2.12, 40-52. <https://actascientific.com/ASOL/ASOL-02-0143.php>
23. Hockley A, **Berger JI**, Palmer AR, Wallace MN (2020) Nitric oxide increases gain within the ventral cochlear nucleus of guinea pigs with tinnitus. *Eur J Neurosci*. <https://doi.org/10.1111/ejn.14913>
24. Hockley A, **Berger JI**, Smith PA, Palmer AR, Wallace MN (2020) Nitric oxide regulates the firing rate of neuronal subtypes in the guinea pig ventral cochlear nucleus. *Eur J Neurosci*. <https://doi.org/10.1111/ejn.14572>
25. Sedley W, Alter K, Gander PE, **Berger J**, Griffiths TD (2019) Exposing pathological sensory predictions in tinnitus using auditory intensity deviant evoked responses. *J Neurosci*. <https://doi.org/10.1523/JNEUROSCI.1308-19.2019>
26. Wilson CA, **Berger JI**, de Boer J, Sereda M, Palmer AR, Hall DA, Wallace MN (2019) Gap-induced inhibition of the post-auricular muscle response in humans and guinea pigs. *Hear Res* 374, 13-23. <https://doi.org/10.1016/j.heares.2019.01.009>
27. **Berger JI**, Owen W, Wilson CA, Hockley A, Coomber B, Palmer AR, Wallace MN (2018) Gap induced reductions of evoked potentials in the auditory cortex: a possible objective marker for the presence of tinnitus in animals. *Brain Res* 1679, 101-108. <https://doi.org/10.1016/j.brainres.2017.11.026>
28. **Berger JI**, Coomber B, Hill S, Alexander SPH, Owen W, Palmer AR, Wallace MN (2017) Effects of the cannabinoid CB1 agonist ACEA on salicylate ototoxicity, hyperacusis and tinnitus in guinea pigs. *Hear Res* 356, 51-62. <https://doi.org/10.1016/j.heares.2017.10.012>
29. **Berger JI**, Coomber B, Wallace MN, Palmer AR (2017) Reductions in cortical alpha activity, enhancements in neural responses and impaired gap detection caused by sodium salicylate in awake guinea pigs. *Eur J Neurosci* 46, 398-409. <https://doi.org/10.1111/ejn.13474>
30. **Berger JI*** and Coomber B* (2015) Tinnitus-related changes in the inferior colliculus. *Front Neurol* 6:61. <https://doi.org/10.3389/fneur.2015.00061>
31. Coomber B, Kowalkowski VL, **Berger JI**, Palmer AR, Wallace MN (2015) Modulating central gain in tinnitus: Changes in nitric oxide synthase in the ventral cochlear nucleus. *Front Neurol* 6:53. <https://doi.org/10.3389/fneur.2015.00053>
32. **Berger JI***, Coomber B*, Wells TT, Wallace MN, Palmer AR (2014) Changes in the response properties of inferior colliculus neurons relating to tinnitus. *Front Neurol* 5:203. <https://doi.org/10.3389/fneur.2014.00203>
33. Coomber B*, **Berger JI***, Kowalkowski VL, Shackleton TM, Palmer AR, Wallace MN (2014) Neural changes accompanying tinnitus following unilateral acoustic trauma in the guinea pig. *Eur J Neurosci* 40(2), 2427-2441. <https://doi.org/10.1111/ejn.12580>

34. **Berger JI**, Coomber B, Shackleton TM, Palmer AR, Wallace MN (2013) A novel behavioural approach to detecting tinnitus in the guinea pig. *J Neurosci Methods* 213(2), 188-195. <https://doi.org/10.1016/j.jneumeth.2012.12.023>

BOOK CHAPTERS

1. Palmer AR and **Berger JI** (2019) Changes in the inferior colliculus associated with hearing loss: noise induced hearing loss, age-related hearing loss, tinnitus and hyperacusis. *Oxford Handbook of the Auditory Brainstem* (Oxford University Press). <https://doi.org/10.1093/oxfordhb/9780190849061.013.20>

PUBLISHED CONFERENCE PROCEEDINGS

1. Gander P, Berger J, Choi I, McMurray B, Ponto L, Griffiths T (2023) [15O]Water PET study of speech-in-noise processing in cochlear implant patients. *Journal of Nuclear Medicine* 64:P1403-P1403. https://jnm.snmjournals.org/content/64/supplement_1/P1403.abstract
2. Smith S, Wallace M, **Berger JI**, Sumner C (2019) Integrating classifiers and electrophysiology to better understand hearing loss. 28th Annual Computational Neuroscience Meeting: CNS*2019. *BMC Neurosci.* 20 (Suppl 1), 56, P297. <https://doi.org/10.1186/s12868-019-0538-0>
3. **Berger JI**, Coomber B, Hill S, Hockley A, Owen W, Alexander SPH, Palmer AR, Wallace MN (2017) Manipulating endocannabinoid signalling in an awake animal model of tinnitus. *Brain and Neuroscience Advances*, 1:236. <https://doi.org/10.1177/2398212817705279>
4. Hockley A, **Berger JI**, Smith PA, Wallace MN, Palmer AR (2017) The role of nitric oxide in modulating neuronal activity in the ventral cochlear nucleus, a possible mechanism of tinnitus generation. *Brain and Neuroscience Advances*, 1:19. <https://doi.org/10.1177/2398212817705279>
5. Coomber B, **Berger JI**, Shackleton TM, Wallace MN, Palmer AR (2014) Neuronal gap detection in the inferior colliculus of a guinea pig model of noise-induced tinnitus. *International Journal of Audiology*, 53(9), 641-696. <https://doi.org/10.3109/14992027.2014.938194>
6. **Berger JI**, Coomber B, Shackleton TM, Wallace MN, Palmer AR (2013). A guinea pig model of tinnitus. *International Journal of Audiology*, 52(4), 242-302. <https://doi.org/10.3109/14992027.2013.765042>
7. Coomber B, **Berger JI**, Maple N, Kowalkowski VL, Palmer AR, Wallace MN (2013) Neural markers for demonstrating the presence of tinnitus in guinea pigs. *International Journal of Audiology*, 52(4), 242-302. <https://doi.org/10.3109/14992027.2013.765042>
8. **Berger JI**, Wallace MN, Palmer AR (2012) Using the pinna reflex as a behavioural test for tinnitus in guinea pigs. *International Journal of Audiology*, 51(3), 220-277. <https://doi.org/10.3109/14992027.2012.653103>

MAGAZINE ARTICLES

1. **Berger JI** (2013) Report from the Tinnitus Research Initiative conference in Valencia. *Quiet: Quarterly magazine of The British Tinnitus Association*. Autumn issue.

PREPRINTS AND IN-PREPARATION

PREPRINTS

1. **Berger JI**, Billig AJ, Kumar S, Sedley W, Griffiths TD, Gander PE (2023) What is the role of the hippocampus in the persistence of tinnitus? PsyArXiv. <https://doi.org/10.31234/osf.io/tpa58>
2. **Berger JI**, Gander PE, Kumar S (2023) A social cognition perspective on misophonia. PsyArXiv. <http://doi.org/10.31234/osf.io/mb7dz>
3. Kovach CK, Moreira JPC, **Berger JI**, Howard MA, Gwilliams L, Fallah A, Comstock L, Mendes EMAM (2023) Higher-Order Spectral Decomposition Applied to Spike Sorting. ResearchGate. <http://doi.org/10.13140/RG.2.2.28352.40967>
4. Ash PA, Benzaquen E, Gander PE, **Berger JI**, Kumar S (2023) Mimicry in misophonia: A large-scale survey of prevalence and relationship with trigger sounds. PsyArXiv. <https://doi.org/10.31234/osf.io/phztn>
5. Choi I, Gander PE, **Berger JI**, Hong J, Colby S, McMurray B, Griffiths TD (2022) Auditory grouping ability predicts speech-in-noise performance in cochlear implants. medRxiv. <https://doi.org/10.1101/2022.05.30.22275790>
6. Gold C, Ray E, Christianson D, Park B, Kournoutas IA, Kahn TA, Perez EA, **Berger JI**, Sanders K, Igram CA, Pugely A, Olinger CR, Carnahan R, Chen P, Mueller R, Hitchon P, Howard MA, Banks M, Sanders R, Woodroffe RW (2022) Risk Factors for Delirium in Elderly Lumbar Spinal Fusion Patients. medRxiv. <https://doi.org/10.1101/2022.01.20.22269610>
7. Kocsis Z, Jenison RL, Cope TE, Taylor PN, Calmus RM, McMurray B, Rhone AE, Sarrett ME, Kikuchi Y, Gander PE, **Berger JI**, Kovach CK, Choi I, Greenlee JD, Kawasaki H, Griffiths TD, Howard MA, Petkov CI (2022) Immediate causal impact of disconnecting a neural hub in the human brain. bioRxiv. <https://doi.org/10.1101/2022.04.15.488388>
8. **Berger JI**, Gander PE, Kikuchi Y, Kumar S, Kovach CK, Oya H, Kawasaki H, Howard MA, Griffiths TD (2021) Distribution of multi-unit pitch responses recorded intracranially from human auditory cortex. bioRxiv. <https://doi.org/10.1101/2021.10.22.465330>
9. **Berger JI**, Gander PE, Kim S, Schwalje A, Woo J, Na Y, Holmes A, Hong J, Dunn C, Hansen M, Gantz B, McMurray B, Griffiths TD, Choi I (2021) Neural correlates of individual differences in speech-in-noise performance in a large cohort of cochlear implant users. bioRxiv. <https://doi.org/10.1101/2021.04.22.440998>
10. Cole RC, Espinoza AI, Singh A, **Berger JI**, Cavanagh J, Greenlee JDW, Narayanan N (under review) Novelty-induced frontal-STN networks in Parkinson's disease. medRxiv. <https://doi.org/10.1101/2021.06.24.21259502>
11. Geller J, Holmes A, Schwalje A, **Berger JI**, Gander PE, Choi I, McMurray B (2020) Validating the Iowa Test of Consonant Perception. PsyArXiv. <https://doi.org/10.31234/osf.io/wxd93>
12. Kumar S*, Gander PE*, **Berger JI***, Nourski KV, Oya H, Kawasaki H, Howard MA, Griffiths TD (2020) Oscillatory correlates of auditory working memory examined with human electrocorticography. bioRxiv. <https://doi.org/10.1101/2020.06.19.161901>

MANUSCRIPTS IN PREPARATION

1. **Berger JI**, Billig AJ, Gander PE, Kumar S, Nourski KV, Kovach CK, Garcia CM, Rhone AE, Dlouhy BJ, Kawasaki H, Howard MA, Griffiths TD (in prep) Single neuron and local field potential activity within human hippocampus and auditory cortex during a working memory precision task.
2. Guo X, Benzaquen E, Sedley W, Holmes E, **Berger JI**, Rushton S⁺, Griffiths TD⁺ (in prep) Predicting speech-in-noise ability using a multivariate model incorporating peripheral hearing and non-verbal measures of auditory figure-ground analysis.

3. Smith F, Gander PE, **Berger JI**, Griffiths TD, McMurray BM, Choi I (in prep) Validating the Iowa Test of Consonant Perception in a large cohort of cochlear implant users.
4. Wallace MN, **Berger JI**, Sumner CJ, Akeroyd MA, Palmer AR, McNaughton PA (in prep) Identifying tinnitus in rodents by tracking the motion of body markers in response to the acoustic startle.
5. Terband H, Cross C, Berger JI, Goodman S (in prep) Speaking-induced Middle Ear Muscle Reflex (MEMR): suppression of auditory feedback during self-vocalization.
6. Jourahmad Z, **Berger JI**, Rohl AH, Kovach CK, Tabasi F, Johari K, Greenlee JDW (in prep) Temporal patterns of firing rates in subthalamic nucleus during speech production compared to non-speech orofacial movement.
7. Kovach CK, Moreira JPC, **Berger JI**, Howard MA, Fallah A, Comstock L, Mendes EMAM (in prep) Higher-Order Spectral Decomposition Applied to Spike Sorting.
8. Gander PE, **Berger JI**, Kumar S, Kovach CK, Oya H, Kawasaki H, Howard MA, Griffiths TD (in prep) Direct human electrical recordings demonstrating fundamental bases for auditory figure-ground analysis.
9. Gander PE, Ponto LL, **Berger JI**, Choi I, McMurray B, Gantz BJ, Griffiths TD (in prep) O-15 water PET study of speech in noise processing in hybrid cochlear implant patients.

INVITED/CONTRIBUTED TALKS

1. **Berger JI** (2024, July) How does consciousness reboot? Tracking human single neuron activity during emergence from propofol anesthesia. 27th Conference of the Association for the Scientific Study of Consciousness, Tokyo, Japan. Co-authors: Mueller RN, Dappen ER, Kawasaki H, Nourski KV, Banks MI.
2. **Berger JI** (2024, June) The potential for objective testing of tinnitus in humans. Invited talk at the Tinnitus Research Initiative conference (special symposium), Vancouver, BC, Canada.
3. **Berger JI** (2024, March) Examining auditory cognition with intracranial recordings: single neurons and LFPs. Invited Seminar at Newcastle University (delivered virtually).
4. **Berger JI** (2023, November) Processing and producing sounds in the human brain: cochlear implants, speech production and misophonia. Invited Seminar at Communication Sciences and Disorders, University of Iowa, Iowa City, IA, USA.
5. **Berger JI** (2023, October) Predicting speech-in-noise ability from neural responses in cochlear implantees. CI Crash, Minnesota, MN, USA.
6. **Berger JI** (2023, September) Studying auditory neuroscience using direct recordings from the human brain. Invited Biomedical Engineering Graduate Seminar, University of Iowa, Iowa City, IA, USA.
7. **Berger JI** (2023, August) Objective testing of tinnitus. Invited talk at the International Conference on the Management of the Tinnitus and Hyperacusis Patient, Iowa City, IA, USA.
8. **Berger JI** (2023, April) Recording from single neurons in the human brain. Invited talk at the Human Brain Research Laboratory Retreat, Iowa City, IA USA.
9. **Berger JI** (2023, February) The Elusivity of an Objective Test for Tinnitus in Humans. Invited talk at the Association for Research in Otolaryngology (ARO) midwinter meeting (tinnitus symposium), Orlando, FL, USA.
10. **Berger JI** (2023, February) An Elusive Objective Test for Tinnitus in Humans. Invited talk at Ear Day, Rush University, Chicago, IL, USA.

11. **Berger JI** (2023, January) Studying auditory neuroscience with units and LFPs in humans. Invited seminar at UT Health, Houston, TX, USA.
12. **Berger JI** (2022, August) Objective testing of tinnitus. Invited talk at the International Conference on the Management of the Tinnitus and Hyperacusis Patient, Iowa City, IA, USA.
13. **Berger JI** (2022, June) Multi-unit neuronal responses to sound pitch recorded directly from human auditory cortex. Midwest Auditory Research Symposium, Ann Arbor, MI, USA.
14. **Berger JI** (2022, February) Speech-in-noise ability is predicted by neural responses in auditory cortex of cochlear implantees. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Virtual.
15. **Berger JI** (2021, October) Speech-in-noise ability is predicted by neural responses in auditory cortex of cochlear implantees. Virtual Joint Meeting of the Midwest Mini-Conference on Cochlear Implants (CRASH) & Mid-Atlantic Symposium on Hearing (MASH).
16. **Berger JI** (2020, November) The Elusivity of an Objective Test for Tinnitus: Findings from Electrophysiology. Invited talk at Brain Imaging and Tinnitus: International Interdisciplinary Conference, University of Illinois (virtual meeting).
17. **Berger JI** (2020, October) Examining effects of noise exposure and tinnitus in animal models. Invited seminar at the University of Minnesota (delivered virtually).
18. **Berger JI** (2020, January) Oscillatory Correlates of Auditory Working Memory in Human Intracranial EEG. Association for Research in Otolaryngology Midwinter Meeting, San Jose, CA, USA.
19. **Berger JI** (2019, July) Oscillatory Correlates of Auditory Working Memory using Electrocoricography. Midwest Auditory Research Symposium, Springfield, IL, USA.
20. **Berger JI** (2017, August) The guinea pig as a model of tinnitus. Invited lecture at the Wolfson Centre for Age-Related Diseases, Kings College London, UK.
21. **Berger JI** (2016, March) Salicylate-induced changes in brain activity in awake guinea pigs. Tinnitus Research Initiative conference, Nottingham, UK.
22. **Berger JI** (2016, March) Examining tinnitus in an animal model: The neurophysiology of tinnitus. Invited lecture to the Nottingham University Neurological and Neurosurgical Society, University of Nottingham UK.
23. **Berger JI** (2015, November) Examining tinnitus in an animal model. Invited lecture to the Scottish Tinnitus Advisory Group, Scotland UK.
24. **Berger JI** (2014, October) Using motion tracking to detect tinnitus in guinea pigs. Invited lecture at the Glasgow Motion Tracking Workshop, University of Strathclyde, Glasgow UK.
25. **Berger JI** (2013, May) Neuronal gap detection in the inferior colliculus in a guinea pig model of noise-induced tinnitus. Tinnitus Research Initiative conference, Valencia Spain.
26. **Berger JI** (2012, September) The guinea pig as an animal model of tinnitus. British Society of Audiology conference, Nottingham, UK.

CONFERENCE PRESENTATIONS

1. Kaskan PM, **Berger JI**, Oya H, Howard MA (2024, June) Patterns of single-unit neuronal activity triggered by intracranial stimulation in the human brain. 10th Annual BRAIN Initiative Conference, Rockville, MD, USA.

2. Terband H, Cross C, **Berger JI**, Goodman S (2024, May) Speaking-induced Middle Ear Muscle Reflex (MEMR): suppression of auditory feedback during self-vocalization. 13th International Seminar on Speech Production, Autrans, France.
3. Nourski KV, Steinschneider M, Rhone AE, **Berger JI**, Dappen ER, Kawasaki H, Howard MA (2024, February) Processing of spectrally degraded speech in the human cortex: An intracranial electrophysiology study. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Anaheim, CA, USA.
4. Smith F, Kiskunas L, Gander P, **Berger JI**, McMurray B, Griffiths T, Choi I (2024, February) Decoding speech from cochlear implant users' EEG. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Anaheim, CA, USA.
5. Gander P, Kiskunas L, **Berger J**, McMurray B, Choi I, Ponto L, Griffiths T (2024, February) Comparison of Speech in Noise Processing in Hearing Impaired Populations Using O-15 Water Pet. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Anaheim, CA, USA.
6. **Berger JI**, Billig AJ, Gander PE, Lad M, Kumar S, Nourski KV, Kovach CK, Rhone AE, Garcia CM, Kawasaki H, Dlouhy BJ, Howard MA, Griffiths TD (2023, November) Neural correlates of auditory working memory precision: an intracranial EEG study. Society for Neuroscience, Washington DC, USA.
7. Jourahmad Z, **Berger JI**, Rohl AH, Kovach CK, Tabasi F, Johari K, Greenlee JDW (2023, November) The representation of syllable repetition, sentence production and orofacial movement in the subthalamic nucleus. Society for Neuroscience, Washington DC, USA.
8. Nourski KV, Steinschneider M, Rhone AE, **Berger JI**, Dappen ER, Kawasaki H, Howard MA (2023, November) Processing of spectrally degraded speech in the human cortex: An intracranial electrophysiology study. Society for Neuroscience, Washington DC, USA.
9. Kaskan PM, Beker S, **Berger JI**, Kovach CK, Eskandar EN, Oya H (2023 November) Encoding valence and arousal in the human brain; amygdala stimulation drives a circuit activating the anterior cingulate cortex. Society for Neuroscience, Washington DC, USA.
10. Rohl AHG, **Berger JI**, Cole RC, Narayanan NS, Greenlee JD (2023, November) Human subthalamic nucleus activity during interval timing tasks in Parkinson's disease. Society for Neuroscience, Washington DC, USA.
11. Billig AJ, Rhone AE, Nourski KV, Gray D, **Berger JI**, Garcia CM, Kovach CK, Petkov CI, Dlouhy BJ, Kawasaki H, Howard MA, Griffiths TD, Steinschneider M (2023, November) Encoding of musical features during naturalistic listening: an intracranial EEG study. Society for Neuroscience, Washington DC, USA.
12. Kumar S, Oya H, Rhone AE, **Berger JI**, Gander PE, Kovach CK, Chan AC, Richerson GB, Wemmie JA, Dlouhy BJ (2023, November) Causal Connectivity of the Amygdala Inhibition of Respiration (AIR) site to Whole Brain Using Concurrent Electrical Stimulation and fMRI (esfMRI). Society for Neuroscience, Washington DC, USA.
13. **Berger JI**, Billig AJ, Gander PE, Lad M, Kumar S, Nourski KV, Kovach CK, Rhone AE, Garcia CM, Kawasaki H, Dlouhy BJ, Howard MA, Griffiths TD (2023, November) Neural correlates of auditory working memory precision: an intracranial EEG study. Advances and Perspectives in Auditory Neuroscience (APAN), Washington DC, USA.
14. Billig AJ, Rhone AE, Nourski KV, Gray D, **Berger JI**, Garcia CM, Kovach CK, Petkov CI, Dlouhy BJ, Kawasaki H, Howard MA, Griffiths TD, Steinschneider M (2023, November) Encoding of musical features during naturalistic listening: an intracranial EEG study. Advances and Perspectives in Auditory Neuroscience (APAN), Washington DC, USA.

15. Nourski KV, Steinschneider M, Rhone AE, **Berger JI**, Dappen ER, Kawasaki H, Howard MA (2023, November) Processing of spectrally degraded speech in the human cortex: An intracranial electrophysiology study. *Advances and Perspectives in Auditory Neuroscience (APAN)*, Washington DC, USA.
16. Gander PE, **Berger JI**, Kiskunas L, Smith F, McMurray B, Griffiths TD, Choi I (2023, November) Neural correlates of speech-in-noise performance in cochlear implant users: PET and EEG studies. *Asia Pacific Symposium on Cochlear Implant and Related Sciences*, Seoul, South Korea.
17. Johari K, **Berger JI** (2023, September) Differential modulation of theta band activity for speech vs. limb movement inhibition through non-invasive prefrontal cortex stimulation. *Society for Psychological Research (SPR) Meeting*. New Orleans, LA, USA.
18. Tabari F, **Berger JI**, Johari K (2023, September) Personalized transcranial alternating current stimulation over supplementary motor area improves speech motor control in neurotypical adults. *Society for Psychological Research (SPR) Meeting*. New Orleans, LA, USA.
19. **Berger JI**, Gander PE, Ponto LL, Lee J, Kiskunas L, Dunn C, Gantz BJ, McMurray B, Choi I, Griffiths TD (2023, July). Speech-in-noise ability is differentially predicted by neural responses in auditory and prefrontal cortex of cochlear implantees. *Conference on Implantable Auditory Prostheses (CIAP)*, Lake Tahoe, CA, USA.
20. Nourski KV, Steinschneider M, Rhone AE, **Berger JI**, Kawasaki H, Howard MA (2023, July) Intracranial electrophysiology of clear and degraded speech processing in the human cortex. *Conference on Implantable Auditory Prostheses (CIAP)*, Lake Tahoe, CA, USA.
21. Kiskunas L, **Berger J**, McMurray B, Choi I, Ponto L, Griffiths T, Gander P (2023, July) Comparison of Speech in Noise Processing in Hearing Impaired Populations Using O-15 Water Pet. *Conference on Implantable Auditory Prostheses (CIAP)*, Lake Tahoe, CA, USA.
22. Alsabbagh N, Smith F, Gander P, **Berger J**, McMurray B, Griffiths T, Choi I (2023, July) Optimizing EEG preprocessing pipelines for cochlear implant artifact removal: challenges and solutions. *Conference on Implantable Auditory Prostheses (CIAP)*, Lake Tahoe, CA, USA.
23. Kovach CK, Moreira JPC, **Berger JI**, Howard MA, Gwilliams L, Fallah A, Comstock L, Mendes EMAM (2023, July) Decomposition of higher-order spectra applied to spike sorting. *Computational Neuroscience Meeting (CNS*2023)*, Leipzig, Germany.
24. Kaskan PM, Beker S, Foxe JJ, Molholm S, Eskandar EN, Oya H, Kovach C, **Berger JI**, Kawasaki H, Howard MA (2023, July). Neural signatures of valence and arousal. Amygdala microstimulation activates a circuit including anterior cingulate cortex. *Amygdala Function in Emotion, Cognition and Disease*, Gordon Research Conference, Castelldefels, Spain.
25. Wallace MN, **Berger JI**, Ingham N, Sumner CJ, Akeroyd MA, Palmer AR, Steel KP, McNaughton PA (2023, June) The HCN2 channels of the vestibulocochlear nerve may be responsible for the development and maintenance of tinnitus in rodents. *Tinnitus Research Initiative*, Dublin, Ireland.
26. Kumar, S., Ash, P., **Berger JI**, Gander, PE., Friesen-Haarer, A. (2023, May) Is Misophonia a Sound Processing Disorder? *Misophonia Association CARE Convention virtual talk*.
27. Smith F, Gander P, **Berger J**, Hong J, McMurray B, Griffiths T, Choi I (2023, February) Plasticity in recent cochlear implantees' cortical response to speech and to noise. *Association for Research in Otolaryngology (ARO) Midwinter Meeting*, Orlando, FL, USA.
28. Kovach CK and **Berger JI** (2022, November) Automated template-matching before detection with higher-order spectra. *Human Single Neuron Meeting*, Los Angeles, CA, USA.
29. Kocsis Z, Jenison RL, Cope TE, Taylor PN, Calmus RM, McMurray B, Rhone AE, Sarrett ME, Kikuchi Y, Gander PE, **Berger JI**, Kovach CK, Choi I, Greenlee JD, Kawasaki H, Griffiths TD,

- Howard MA, Petkov CI (2022, November) Immediate Neural Impact and Compensation After Semantic Hub Disconnection. Human Single Neuron Meeting, Los Angeles, CA, USA.
30. Johari K and **Berger JI** (2022, November) HD-tDCS of Right Prefrontal Cortex Differently Modulates P3 for speech vs. limb Movement Inhibition. Society for Neuroscience, San Diego, CA, USA.
31. Kocsis Z, **Berger JI**, Calmus RM, McMurray B, Choi I, Greenlee J, Kawasaki H, Howard MA, Petkov CI (2022, November) Long-term neurophysiological impact and compensation after disconnection of the anterior temporal lobe. Society for Neuroscience, San Diego, CA, USA.
32. Jourahmad Z, **Berger JI**, Rohl AH, Tabasi F, Johari K, Greenlee JDW (2022, November) Speech and orofacial-related modulation of subthalamic neuronal activity in Parkinson's patients. Society for Neuroscience, San Diego, CA, USA.
33. Billig AJ, Kumar S, Sedley W, Gander PE, **Berger JI**, Lad M, Chait M, Kawasaki H, Kovach CK, Howard MA, Griffiths TD (2022, November) Tracking a non-spatial sound feature in human auditory cortex and hippocampus. Advances and Perspectives in Auditory Neuroscience (APAN), San Diego, CA, USA.
34. Kocsis Z, **Berger JI**, Calmus RM, McMurray B, Choi I, Greenlee J, Kawasaki H, Howard MA, Petkov CI (2022, November) Long-term neurophysiological impact and compensation after disconnection of the anterior temporal lobe. Advances and Perspectives in Auditory Neuroscience (APAN), San Diego, CA, USA.
35. Billig AJ, Kumar S, Gander PE, Sedley W, **Berger JI**, Lad M, Kawasaki H, Kovach CK, Chait M, Howard MA, Griffiths TD (2022, September) Tracking a non-spatial sound feature in human auditory cortex and hippocampus. International Conference on Auditory Cortex, Magdeburg, Germany.
36. Kocsis Z, Jenison RL, Cope TE, Taylor PN, Calmus RM, McMurray B, Rhone AE, Sarrett ME, Kikuchi Y, Gander PE, **Berger JI**, Kovach CK, Choi I, Greenlee JD, Kawasaki H, Griffiths TD, Howard MA, Petkov CI (2022, June) Immediate neural network impact after the loss of a semantic hub. Midwest Auditory Research Symposium, Ann Arbor, MI, USA.
37. Hockley A, **Berger JI**, Heo A, Shore S (2022, February) Modulation of the Acoustic Startle Response by Background Sound. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Virtual.
38. Gander PE, **Berger JI**, Kim S, Schwalje A, Woo J, Na Y, Holmes A, Hong J, Dunn C, Hansen M, Gantz BJ, McMurray B, Griffiths TD, Choi I (2022, February) Behavioural Evidence for a Relationship Between Auditory Object Formation and Speech-In-Noise Processing in a Cochlear Implant Population. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Virtual.
39. Billig AJ, Kumar S, Gander PE, Sedley W, **Berger JI**, Lad M, Kawasaki H, Kovach CK, Chait M, Howard MA, Griffiths TD (2022, February) A Hippocampal Role in the Active Adjustment of a Non-Spatial Acoustic Scene. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Virtual.
40. **Berger JI**, Gander PE, Kim SE, Schwalje AT, Woo J, Na Y-M, Holmes A, Hong J, Dunn C, Hansen M, Gantz BJ, McMurray B, Griffiths TD, Choi I (2021, February) Neural correlates of speech-in-noise variance in cochlear implant users. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Virtual.
41. **Berger JI**, Sedley W, Rhone AE, Howard MA, Griffiths TD, Dlouhy BJ, Gander PE (2021, February) Objective measurement of tinnitus in a patient implanted with intracranial electrodes. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Virtual.

42. Longenecker R, Fawcett T, **Berger JI**, Galazyuk A, Rosen M, Salvi R, Walton J (2021, February) Towards universal automated classification of the acoustic startle reflex with machine learning. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Virtual.
43. Gander PE, **Berger JI**, Kim SE, Schwalje AT, Woo J, Na Y-M, Holmes A, Hong J, Dunn C, Hansen M, Gantz BJ, McMurray B, Griffiths TD, Choi I (2021, February) Evidence for Neuroplasticity in EEG Responses to Speech-In-Noise Within the First Year After Cochlear Implant Activation. Association for Research in Otolaryngology (ARO) Midwinter Meeting, Virtual.
44. **Berger JI**, Gander PE, Kikuchi Y, Oya H, Kawasaki H, Howard MA, Griffiths TD (2020, October) Distribution of multi-unit pitch responses recorded intracranially from human auditory cortex. Advances and Perspectives in Auditory Neuroscience (APAN), Virtual.
45. Gander PE, **Berger JI**, Kumar S, Kovach CK, Oya H, Kawasaki MA, Howard MA, Griffiths TD (2020, October) Direct electrical recordings of neural activity related to auditory figure-ground segregation in the human auditory cortex. Advances and Perspectives in Auditory Neuroscience (APAN), Virtual.
46. Smith SS, Wallace MN, **Berger JI**, Akeroyd MA, Sumner CJ (2020, January) Identifying overlapping vowel-consonants following hearing loss: Machine learning of neural representations. Speech in Noise Workshop, Ghent, Belgium.
47. **Berger JI**, Gander PE, Kumar S, Nourski KV, Banks MI, Oya H, Kawasaki H, Howard MA, Griffiths TD (2019, October) Oscillatory correlates of auditory working memory in human intracranial EEG. Society for Neuroscience, Chicago, IL, USA.
48. **Berger JI**, Gander PE, Kumar S, Nourski KV, Banks MI, Oya H, Kawasaki H, Howard MA, Griffiths TD (2019, October) Oscillatory correlates of auditory working memory in human intracranial EEG. Advances and Perspectives in Auditory Neuroscience (APAN), Chicago, IL, USA.
49. Smith SS, Wallace MN, **Berger JI**, Sumner CJ (2019, September) The influence of hearing loss on the automatic recognition of neural responses to overlapping syllables. Basic Auditory Science Conference, London, UK.
50. Gander PE, **Berger JI**, Ponto LL, Johnsrude IJ, Choi I, McMurray B, Griffiths TD (2019, July) O-15 Water PET study of speech in noise processing in cochlear implant patients. Midwest Auditory Research Symposium, Springfield, USA.
51. Gander PE, **Berger JI**, Ponto L, Johnsrude I, Choi I, McMurray B, Griffiths T (2019, May) O-15 Water PET study of speech in noise processing in cochlear implant patients. International Hearing Loss Conference, Niagara-on-the-Lake, Canada.
52. Hockley A, **Berger JI**, Hill SMD, Smith PA, Palmer AR, Wallace MN (2018, September) NO-mediated homeostatic plasticity in the guinea-pig ventral cochlear nucleus: a potential tinnitus generation mechanism. International Conference on the Biology, Chemistry and Therapeutic Applications of Nitric Oxide, Cambridge, UK.
53. Hockley A, **Berger JI**, Hill SMD, Smith PA, Palmer AR, Wallace MN (2018, September) Nitric oxide in the ventral cochlear nucleus as a tinnitus generation mechanism. Basic Auditory Science Conference, Newcastle, UK.
54. Hockley A, **Berger JI**, Smith P, Palmer AR, Wallace MN (2018, February) Nitric oxide as a modulator in the ventral cochlear nucleus: a potential tinnitus generation mechanism. Association for Research in Otolaryngology Midwinter Meeting, San Diego, CA, USA.
55. **Berger JI**, Coomber B, Hill S, Hockley A, Owen W, Alexander SPH, Palmer AR, Wallace MN (2017, September) Effects of a cannabinoid agonist in an awake model of tinnitus. Basic Auditory Science Conference, Nottingham, UK.

56. Hockley A, **Berger JI**, Smith PA, Palmer AR, Wallace MN (2017, September) Nitroergic modulation in the ventral cochlear nucleus and its changing role in tinnitus. Basic Auditory Science Conference, Nottingham, UK.
57. **Berger JI**, Coomber B, Hill S, Hockley A, Owen W, Alexander SPH, Palmer AR, Wallace MN (2017, April) Manipulating endocannabinoid signalling in an awake animal model of tinnitus. British Neuroscience Association (BNA) Festival of Neuroscience, Birmingham, UK.
58. Hockley A, **Berger JI**, Smith PA, Wallace MN, Palmer AR (2017, April) The role of nitric oxide in modulating neuronal activity in the ventral cochlear nucleus, a possible mechanism of tinnitus generation. British Neuroscience Association (BNA) Festival of Neuroscience, Birmingham, UK.
59. Woolnough O, Berger JI, Coomber B, Wallace MN, Palmer AR, Sumner CJ (2016, November) Anaesthetic choice modulates basic auditory processing: A combined EEG/LFP study in guinea pigs. Society for Neuroscience, San Diego, CA, USA.
60. Woolnough O, Berger JI, Coomber B, Wallace MN, Palmer AR, Sumner CJ (2016, November) Anaesthetic choice modulates basic auditory processing: A combined EEG/LFP study in guinea pigs. Advances and Perspectives in Auditory Neuroscience (APAN), San Diego, CA, USA.
61. Wilson CA, **Berger JI**, de Boer J, Sereda M, Palmer AR, Hall DA, Wallace MN (2016, November) Use of the post auricular muscle response for measuring pre-pulse inhibition of the human acoustic startle reflex. Society for Neuroscience, San Diego, CA, USA.
62. Wilson CA, **Berger JI**, de Boer J, Sereda M, Palmer AR, Hall DA, Wallace MN (2016, November) Use of the post auricular muscle response for measuring pre-pulse inhibition of the human acoustic startle reflex. Advances and Perspectives in Auditory Neuroscience (APAN), San Diego, CA, USA.
63. Hockley A, **Berger JI**, Smith PA, Wallace MN and Palmer AR (2016, November) The role of nitric oxide in modulating neuronal activity in the ventral cochlear nucleus. Society for Neuroscience, San Diego, CA, USA.
64. Hockley A, **Berger JI**, Smith PA, Wallace MN and Palmer AR (2016, November) The role of nitric oxide in modulating neuronal activity in the ventral cochlear nucleus. Advances and Perspectives in Auditory Neuroscience (APAN), San Diego, CA, USA.
65. **Berger JI**, Coomber B, Wallace MN and Palmer AR (2016, September) Salicylate-induced changes in brain activity in awake guinea pigs. Basic Auditory Science Conference, Cambridge, UK.
66. **Berger JI**, Coomber B, Wallace MN and Palmer AR (2015, October) Salicylate-induced changes in brain activity in awake guinea pigs. Society for Neuroscience, Chicago, USA.
67. **Berger JI**, Coomber B, Wallace MN and Palmer AR (2015, October) Salicylate-induced changes in brain activity in awake guinea pigs. Advances and Perspectives in Auditory Neuroscience (APAN), Chicago, USA.
68. **Berger JI**, Coomber B, Wallace MN and Palmer AR (2015, September) Salicylate-induced changes in brain activity in awake guinea pigs. Basic Auditory Science Conference, Cardiff, UK.
69. **Berger JI**, Coomber B, Carver AP, Wallace MN and Palmer AR (2014, September) Objectively characterising tinnitus using the postauricular muscle reflex. British Society of Audiology Conference, Keele, UK.
70. **Berger JI**, Coomber B, Wells T, Wallace MN and Palmer AR (2014, May) Changes in the response properties of inferior colliculus neurons associated with tinnitus. International Tinnitus Seminar, Berlin, Germany.
71. Coomber B, **Berger JI**, Wallace MN, Palmer AR (2013, September) Neuronal gap detection in the inferior colliculus of a guinea pig model of noise-induced tinnitus. British Society of Audiology Conference, Manchester UK.

72. **Berger JI**, Coomber B, Kowalkowski VL, Shackleton TM, Wallace MN and Palmer AR (2013, February) Behavioural, neural and histological correlates of tinnitus in the guinea pig. Association for Research in Otolaryngology Midwinter Meeting, Baltimore, USA.
73. **Berger JI**, Coomber B, Kowalkowski VL, Shackleton TM, Wallace MN and Palmer AR (2012, October) Neural and histological correlates of behaviourally-identified tinnitus. Society for Neuroscience, New Orleans, USA.
74. **Berger JI**, Coomber B, Kowalkowski VL, Shackleton TM, Wallace MN and Palmer AR (2012, October) Neural and histological correlates of behaviourally-identified tinnitus. Advances and Perspectives in Auditory Neuroscience (APAN), New Orleans, USA.
75. Coomber B, **Berger JI**, Maple N, Kowalkowski VL, Palmer AR, Wallace MN (2012, September) Neural markers for demonstrating the presence of tinnitus in guinea pigs. British Society of Audiology Conference, Nottingham UK.
76. **Berger JI**, Coomber B, Shackleton TM, Wallace MN and Palmer AR (2012, June) Behavioural effects of two tinnitus inducers (noise exposure and salicylate) in guinea pigs. Tinnitus Research Initiative, Bruges, Belgium.
77. **Berger JI**, Wallace MN and Palmer AR (2011, December) The guinea pig as an animal model of tinnitus. UoN Postgraduate Research Forum, Nottingham, UK.
78. **Berger JI**, Wallace MN and Palmer AR (2011, September) Using the pinna reflex as a behavioural test for tinnitus in guinea pigs. British Society of Audiology Conference, Nottingham UK.
79. **Berger JI**, Wallace MN and Palmer AR (2011, August) Using the pinna reflex as a behavioural test for tinnitus in guinea pigs. Tinnitus Research Initiative, Buffalo, USA.
80. **Berger JI**, Wallace MN, Mason R and Palmer AR (2011, June) Using the pinna reflex as a behavioural test for tinnitus in guinea pigs. UoN Faculty Research Forum, Nottingham, UK.

TEACHING INTERESTS

Auditory system, neurobiology, neurophysiology, neuroscience, psychology

TEACHING EXPERIENCE

Dissertation committee , Kayla Howerton (PhD candidate), U. of Iowa	2024
Thesis planning committee , Nour Alsabbagh (PhD candidate), U. of Iowa	2023 – present
Guest lecturer , noise/hearing conservation class (Aud level), University of Minnesota	2020 – present
Mentor , Adam Hockley (PhD candidate – awarded in 2019), University of Nottingham	2015 – 2019
Mentor , Caroline Wilson (PhD candidate – awarded in 2018), University of Nottingham	2014 – 2018
Guest lecturer , Neuronal Circuits and Systems (BSc level), University of Nottingham	2016
Tutor , Current Trends in Neuroscience (MSc level), University of Nottingham	2014 – 2016

PROFESSIONAL AFFILIATIONS

Phi Beta Delta Honor Society	2020 – present
Association for Research in Otolaryngology	2013 – present
Society for Neuroscience	2012 – present
British Neuroscience Association	2017 – 2018
British Society of Audiology	2011 – 2018

AD-HOC REVIEWER

Since 2013, I have reviewed on an ad-hoc basis for the following: **PLoS Biology, Neuron, European Journal of Neuroscience, Cerebral Cortex, PLoS Computational Biology, BMC Neuroscience, Mitacs Grants, Journal of the Association for Research in Otolaryngology, PNAS Nexus, American Journal of Audiology, NeuroImage, Ear & Hearing, Frontiers in Systems Neuroscience, NeuroImage: Clinical, eLife, Frontiers in Behavioral Neuroscience, Action on Hearing Loss Grants, Neuroscience, Frontiers in Neuroscience, Frontiers in Psychology, PLoS One, Hearing Research, Frontiers in Neurology, Noise & Health.**

EXTRACURRICULAR SERVICE

Associate Editor, Frontiers in Neuroscience	2023
Guest Editor, Frontiers in Neuroscience, Frontiers in Psychology (Special Issue): “Bridging the Gap Between the Different Pillars of Tinnitus Research”	2023
Associate Editor, Frontiers in Neurology	2023
Co-chair, Tinnitus Research Initiative Conference Scientific Programme Hosted at University of Nottingham with 300 national and international attendees	2016

ADDITIONAL WORK EXPERIENCE

Paid consultant, Turner Scientific Consulting on a behavioural model of tinnitus (software creation)	2023 – present
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NON-SCIENCE ROLES

Iowa parkrun (founder and event director)	2022 – present
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