CURRICULUM VITAE

Erin Gillikin Piker, Au.D., Ph.D.

Associate Professor
Program Director of Audiology
Director of Vestibular Sciences Lab
Department of Communication Sciences and Disorders
James Madison University
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EDUCATION

Vanderbilt University	Ph.D.	2012	Hearing Science (minor: Neuroscience)
Vanderbilt University	Au.D.	2008	Doctor of Audiology
College of William and Mary	B.S.	2003	Psychology (Primary major)
			Linguistics (Secondary major)

LICENSURE AND CERTIFICATION

Virginia Board of Audiology License, 2018-present

State of North Carolina License in Audiology, 2012-2016

State of Tennessee License in Audiology, 2008-2012

Certificate of Clinical Competency in Audiology (CCC-A) from American Speech-Language and Hearing Association, 2008-present

PROFESSIONAL EXPERIENCES

Program Director of Audiology, Department of Communication Sciences and Disorders, James Madison University, 2022 – Present

Associate Professor, Department of Communication Sciences and Disorders, James Madison University, 2020 - Present

Assistant Professor, Department of Communication Sciences and Disorders, James Madison University, 2016-2020

Assistant Professor, Division of Otolaryngology-Head and Neck Surgery, Duke University Medical Center, 2014-2016

Director of Auditory and Vestibular Research, Division of Otolaryngology-Head and Neck Surgery, Duke University Medical Center, 2014-2016

Medical Instructor, Division of Otolaryngology-Head and Neck Surgery, Duke University Medical Center, 2012-2014

Clinical Audiologist, Balance Disorders Clinic, Vanderbilt University Medical Center, 2008-2012

Graduate Research Assistant, Electrophysiology Lab directed by Gary P. Jacobson, Vanderbilt University Medical Center, 2006-2012

HONORS AND AWARDS

Early Career Audiologist Award, American Academy of Audiology, 2019

1st Time External Funding Award Recipient, James Madison University, Office of Sponsored Programs, 2018

1st Year Faculty Recognition Award, James Madison University, Office of Sponsored Programs, 2017

Clinical Preceptor of the Year Award from the University of North Carolina, 2016

Journal of the American Academy of Audiology Editor's Award, 2014

American Speech-Language-Hearing Association Lessons for Success fellowship award, grant writing workshop (NIDCD U24 DC007835), 2014

Mentoring for Junior Faculty and Clinician Scientists in Communication Disorders program; Mentors: Robert Baloh, MD and Walter Lee, MD. (NIDCD U24 DC012079), 2013

James Jerger Award for Excellence in Student Research, National meeting of the American Academy of Audiology, 2012

Mentored Doctoral Student Research Poster Session Award, National meeting of American Auditory Society, 2012

Mentored Doctoral Student Research Poster Session Award, National meeting of American Auditory Society, 2010

Mentored Doctoral Student Research Poster Session Award, National meeting of American Auditory Society, 2009

The Hearing Journal's Best of Audiology Literature pick for Jacobson et al. 2008 article, 2008

The Hearing Journal's Best of Audiology Literature pick for Piker et al. 2008 article, 2008

Preparation of Tomorrow's Leaders in Pediatric Audiology and Early Intervention Scholarship (Grant #H325D050047), 2008-2010

HONORS AND AWARDS, ROLE: MENTOR

Top student poster award, Speech and Hearing Association of Virginia (SHAV) annual conference, Awarded to Ellen Jones, Role: Mentor, 2023

Resident and Graduate Student Mentored Research Poster Session Travel Award through the American Auditory Society, Awarded to Raghav Jha. Role: Co-Mentor, 2023

Resident and Graduate Student Mentored Research Poster Session Travel Award through the American Auditory Society, Awarded to Jesus Gomez Role: Mentor, 2023

Students Preparing for Academic Research Careers (SPARC) Award, ASHA, Awarded to Erin Hernon. Role: Mentor, 2021-2022

Resident and Graduate Student Mentored Research Poster Session Travel Award through the American Auditory Society, Awarded to Raghav Jha. Role: Co-Mentor, 2022

Graduate Student Travel Grant, JMU, Awarded to Raghav Jha, role: Mentor

CAPCSD PhD Scholarship, Awarded to Raghav Jha, Role: Co-Mentor

Top Poster Presentation, JMU Graduate Student Scholarship and Creative Activity, awarded to Erin Hernon, Role: Mentor, 2021

Student Research Forum Award, American Academy of Audiology, monetary award to Daniel Romero, Role: Mentor, 2020

Resident and Graduate Student Mentored Research Poster Travel Award, awarded to Kerri Lawlor, Role: Co-Mentor, 2020

JMU Graduate School Travel Grant, award to Daniel Romero, Role: Mentor, 2020

ASHA's Audiology/Hearing Science Research Travel Award to Daniel Romero, Role: Mentor, 2019

Resident and Graduate Student Mentored Research Poster Travel Award, awarded to Andrew Thorne, Role: Co-Mentor, 2019

Audiology/Hearing Science Research Travel Award (ARTA) from American Speech-Language-Hearing Association awarded to Daniel Romero, Role: Mentor, 2019

PEER-REVIEWED PUBLICATIONS (reverse chronological order)

- * Denotes Student Author
- **1.** Maidment, D.W., Wallhagen, M.I., Dowd, K., Mick, P., **Piker, E.G.,** Spankovich, C., Urry, E, (2023). New horizons in holistic, person-centered health promotion for hearing healthcare. *Age and Ageing*, 52;1-8. https://doi.org/10.1093/ageing/afad020
- **2.** *Jha, RH, **Piker EG,** Romero D. (2022). Effects of age and middle ear on the frequency tuning of the cVEMP and oVEMP. Journal of the American Academy of Audiology. May; 33(5): 259-269. doi: 10.1055/s-0042-1747910.
- **3.** Clinard, CG, **Piker**, **EG**, Romero D. (2022). Inter-trial coherence as a measure of synchrony in cervical vestibular evoked myogenic potentials. J Neuroscience Methods. Jul 15;377:109628. doi: 10.1016/j.jneumeth.2022.109628
- **4.** *Lawlor KJ, Clinard CG, **Piker EG**. (2022). Temporal Modulation Transfer Functions of Amplitude-Modulated Cervical Vestibular-Evoked Myogenic Potentials in Young Adults. Ear Hear. Mar 23. doi: 10.1097/AUD.000000000001221. Epub ahead of print. PMID: 35319517.
- **5. Piker EG**, Picou E, Jacobson GP, *Coltisor A. (2022). Agreement Between Caloric and Horizontal Video Head Impulse Testing in School-Aged Children Presenting With Dizziness. Am J Audiol. Mar 14:1-6. doi: 10.1044/2021_AJA-21-00224. Epub ahead of print. PMID: 35286154.

- **6.** Clinard CG, *Lawlor KJ, *Thorne AP, **Piker EG**. (2022). Nonlinearity in bone-conducted amplitude-modulated cervical vestibular-evoked myogenic potentials: harmonic distortion products. J Neurophysiol. Mar 1;127(3):791-800. doi: 10.1152/jn.00347.2021. Epub 2022 Feb 16. PMID: 35171737
- 7. *Lampasona G, Piker E, Ryan C, Gerend P, Rauch SD, Goebel JA, Crowson MG. (2021). A Systematic Review of Clinical Vestibular Symptom Triage, Tools, and Algorithms. Otolaryngol Head Neck Surg. Aug 10:1945998211032912. doi: 10.1177/01945998211032912. Epub ahead of print. PMID: 34372737.
- **8.** Clinard CG, *Lawlor KJ, **Piker EG.** (2021). Effects of Stimulus Polarity on Amplitude-Modulated Cervical Vestibular-Evoked Myogenic Potentials. J Am Acad Audiol. Oct;32(9):588-595. doi: 10.1055/s-0041-1733968. Epub 2022 Feb 17. PMID: 35176802.
- **9.** *Romero, D.J., **Piker, E.G.,** Thorne, A., Clinard, C. (2021). Comparison of bone-conducted cervical VEMPs elicited by B71 and B81 bone vibrators. *Ear & Hearing*. Jan 25;42(3):596-605. doi: 10.1097/AUD.0000000000000978.
- **10.** Clinard, C.G., *Thorne, A., **Piker, E.G.** (2020). Effects of tonic muscle activation on amplitude-modulated cervical vestibular evoked myogenic potentials (AMcVEMPs): preliminary findings. *JARO*. Oct;21(5):445-461. doi: 10.1007/s10162-020-00766-z.
- **11. Piker, E.G.,** Spankovich, C., *Romero, D.J., Memering, C.E., Pierantoni, J.A. (2020). What diabetic educators need to know about the hearing and vestibular consequences of diabetes. *ADCES in Practice*. September 2020.
- **12.** *Landon-Lane, R.L., **Piker, E.G.,** Jacobson, G.P., Hatton, K., Roberts, R.A. (2020). Test-retest reliability of the Dizziness Symptom Profile (DSP). *Ear & Hearing*. Jul 17;42(1):206-213. doi: 10.1097/AUD.0000000000000918
- **13. Piker, E.G.,** Riska, K. Garrison, D., Kaylie, D. M. (2020). Vestibular function after cochlear implantation: a test battery approach and case-by-case approach. *Laryngoscope Investigative Otolaryngology*. June 4;5(3):560-571. doi: 10.1002/lio2.413
 - **14. Piker**, **E.G.**, Jacobson, G., *Wang, Y., Smith, K., *Romero, D. (2020). The clinical significance of the failure to perceive vertigo in the post-caloric period despite a robust caloric response. *American Journal of Audiology*. March, 5;29(1):50-58. doi: 10.1044/2019_AJA-19-00036
 - **15.** Jacobson, G. P., **Piker, E. G**; Hatton, K., Roberts, R. A. (2020). A factor analytic assessment of the English language translation of the neuropsychological vertigo inventory (NVI). *Journal of Otology*. June; 15(2):45-49. doi: 10.1016/j.joto.2019.09.005.
 - 16. Clinard, C., Piker, E.G., *Thorne, A.P., *Surface, E.N., *Anderson, A.E., *Beacham, V.A., *Crouse, M.C., *Whitney, V.H., DePaolis, R.A. (2020). Maximum output and low-

- frequency limitations of B71 and B81 clinical bone vibrators: implications for vestibular evoked potentials. *Ear & Hearing*. Jul/Aug; 41(4):847-854. doi: 10.1097/AUD.000000000000808.
- **17. Piker, E.G.,** *Romero, D.R. (2019). Diabetes and the Vestibular System., *Seminars in Hearing*. Nov;40(4):300-307. doi: 10.1055/s-0039-1697032.
- **18.** Jacobson, G. P. **Piker, E. G.,** Hatton, K., Watford, K. E., Trone, T., McCaslin, D.L., Bennett, M.L., Rivas, A., Haynes, D.S., Roberts, R.A. (2019). Development and preliminary findings of the Dizziness Symptom Profile. *Ear & Hearing*. May/June;40(3):568-576.
- **19. Piker, E.G.,** Jacobson, G.P., *Makowiec, K.F., *Atabek, P.M. (2018). The medial canthus reference electrode is not electrically indifferent to the ocular vestibular evoked myogenic potential. *Otology & Neurotology.Dec;39(10)*:e1069-e1077.
- **20.** Jacobson, G.P., **Piker, E.G.,** Grantham, S.L., English, L.T. (2018). Age predicts the absence of caloric-induced vertigo. *Journal of Otology*, 13(1), pp. 5 9.
- *Carpenter, D., **Piker, E.G.**, Frank-Ito, D.O. (2018). Pilot study to investigate the relationship between temporal bone anatomy and caloric asymmetry. *American Journal of Audiology*, 27, pp. 110 120.
- *Burnette, E., **Piker, E.G**. (2018). Reevaluating order effects in the binaural bithermal caloric test. *American Journal of Audiology*, 27, pp. 104 109.
- **23.** *Makowiec, K.F, **Piker, E.G,** Jacobson, G.P., Roberts, R.A. (2018), Ocular and cervical vestibular evoked myogenic potentials in patients with vestibular migraine, *Otology & Neurotology*. 39(7):e561-e567.
- **24.** *Jong, M.A., Carpenter, D.J., Kaylie, D.M., **Piker, E.G.,** Frank-Ito, D.O. (2017). Temporal bone anatomy characteristics in superior semicircular canal dehiscence. *Journal of Otology*, 12(4), 185 191.
- **25. Piker, E.G.,** Schulz, K., Parham, K., Vambutas, A., Witsell, D.... Lee, W.T. (2016) Variation in the use of vestibular diagnostic testing for patients presenting to otolaryngology clinics with dizziness. *Otolaryngol Head Neck Surg*, 155(1): 42 47.
- **26.** *Patki, A.U., Ronen O., Kaylie D.M., Frank-Ito D.O., **Piker E.G.** (2016). Anatomic variations in temporal bones affect the intensity of nystagmus during warm caloric irrigation. *Otol Neurotol*, 37(8):1111 1116.
- **27.** *Chandramohan, A., Wright, J., Fernandez, X.D., Zhuang, J., Lad, E., Cousins, S., Madden, D., **Piker, E.G.**, Tucci, D., Whitson, H. (2015) The Effect of Hearing on Cognitive Evaluation in Patients with Age-related Macular Degeneration. *Journal of the American Geriatric Society*, 63:S147-S147.

- **28. Piker, E.G.,** Baloh R.W., Witsell, D.L., Garrison D., Lee, W.T. (2015) Assessment of the clinical utility of cVEMP and oVEMP testing in elderly patients. *Otology and Neurotology*. June 24 2015 Epub ahead of print.
- **29. Piker, E.G.**, Garrison, D., Kaylie, D.M., Tucci, D.L. (2015) Hospital Anxiety and Depression Scale: factor structure, internal consistency, and convergent validity in patients with dizziness. *Audiology and Neurotology*, 20:394-399.
- **30. Piker, E.G.,** Jacobson, G.P. (2014) Self-report symptoms differ between younger and older dizzy patients. *Otology and Neurotology*, 35(5):873-879.
- **31.** Jacobson, G.P., **Piker, E.G.**, Watford, K.E., Gruenwald, J., Wanna, G., Riva,s A. (2014) Concordance and discordance between patient and healthcare provider on dizziness self-report measures. *American Journal of Otolaryngology*, 35(6):779-783.
- **32.** *Kahmke, R.R., Keeler, J.A., Garrison, D., **Piker, E.G.**, Tucci, D.L, Adkins, H.D, Kaylie, D.L. (2014) Vestibular testing data in migraine-associated vertigo. *Otolaryngology Head and Neck Surgery*, 151(1 Suppl):P99-P100.
- **33. Piker, E.G.**, Jacobson, G.P., Burkard, R.F., McCaslin, D.L, Hood, L. (2013) Effects of age on the tuning of the cVEMP and oVEMP. *Ear & Hearing*, 34(6):65-73
- **34. Piker, E.G.**, Jacobson, G.P., Tran, A.T., McCaslin, D.L., Hale, S.T. (2012) Spouse perceptions of patient self-reported vertigo severity and dizziness handicap. *Otology and Neurotology*, 33:1034-1039.
- **35.** Jacobson, G.P., **Piker, E.G.**, Do, C.K., McCaslin, D.L., Hood, L. (2012) Suppression of the vestibulo-ocular reflex using visual and non-visual stimuli. *American Journal of Audiology*, 21: 226-231.
- **36. Piker, E.G.**, Jacobson, G.P., McCaslin, D.L., Hood, L.J. (2011) Normal Characteristics of the ocular vestibular evoked myogenic potential. *Journal of the American Academy of Audiology*, 22, 222-230.
- **37.** McCaslin, D.L., Jacobson, G.P., Grantham, S.L., **Piker, E.G.**, Verghese, S. (2011) The influence of unilateral saccular impairment on functional balance performance and self-report dizziness handicap. *Journal of the American Academy of Audiology*, 22 (8), 542-549.
- **38.** Jacobson, G.P., McCaslin, D.L., **Piker, E.G.**, Gruenwald, J., Grantham, S.L., Tegel, L. (2011) The "Romberg test of standing balance on firm and compliant support surfaces" is insensitive to vestibular system impairment. *Ear and Hearing*, 32: (6) 1-5.
- **39.** Jacobson, G.P., McCaslin, D.L, **Piker, E.G.**, Gruenwald, J., Grantham, S.L, Tegel, L. (2011) Patterns of abnormality in cVEMP, oVEMP and caloric tests may provide topological information about vestibular system impairment. *Journal of the American Academy of Audiology*, 22: 601-611.

- **40.** Jacobson, G.P., McCaslin, D.L, Grantham, S.L, **Piker, E.G.** (2008) Significant vestibular impairment is common in a cohort of elderly patients referred for assessment of falls risk. *Journal of the American Academy of Audiology*, 19, 799-807
- **41. Piker, E.G.**, Jacobson, G.P, McCaslin, D.L, Grantham, S. (2008) Psychological comorbidities and their relationship to self-report handicap in samples of dizzy patients. *Journal of the American Academy of Audiology*, 19, 337-347.

NON-PEER REVIEWED PUBLICATIONS

- **1. Piker**, **E.G.**, *Romero, D.J., *Jones, E. (2020). Qualitative analysis of patient perspectives on vestibular testing. *The Hearing Journal*. August 2020.
- **2.** Nkosi, S., Rogers, C., **Piker, E.G.**, (2020). The risk of falls in diabetes. *Diabetes Focus eMag, Diabetes South Africa*. August 2020.
- **3. Piker, E.G.,** Jacobson, G.P., McCaslin, D.M. (2020). Slow the spread of Covid-19, and get your audiology CEUs at the same time [Editorial]. *Journal of the American Academy of Audiology*.
- **4. Piker EG** (2014) Update on cVEMP and oVEMP testing and superior canal dehiscence. *Canadian Audiology*. Vol(1) Issue(4).
- **5.** Jacobson GP & **Piker EG** (2012) Vestibular Evoked Myogenic Potentials: Current State of Affairs. *Canadian Hearing Report*, May; 7(2): 31-.
- **6.** McCaslin DL & **Piker EG** (2011) A Quick Look at the Ocular VEMP. *Audiology Today*, 23, 28-35.
- 7. **Piker EG** (2009) Student Spotlight: How I found Audiology. *Audiology Today*, 21, 70.

BOOK CHAPTERS (reverse chronological order)

- 1. Singh, N.K., **Piker, E.G.,** (In Press). Ocular Vestibular Evoked Myogenic Potentials. In Sujeet Kumar Sinha (Ed.), *Textbook of Vestibular Evoked Myogenic Potentials*.
- **2. Piker, E.G.,** Jacobson, G.P., Newman, C.W. (2020). Assessing dizziness-related quality of life. In G.P Jacobson & N.T. Shepard (Eds.), *Balance Function Assessment and Management. San Diego, CA:* Plural Publishing.
- **3.** Jacobson, G.P, **Piker, E.G.,** Roberts, R., McCaslin, D., Ramadan, N. (2020). Topological localization of vestibular system impairment. In G.P Jacobson & N.T. Shepard (Eds.), *Balance Function Assessment and Management. San Diego, CA:* Plural Publishing.

- **4.** Jacobson GP, Shepard NT, McCaslin DL, **Piker EG** (2016). Eye movement recording techniques. In G. P. Jacobson & N. Shepard (Eds.), *Balance Function Assessment and Management*, 2nd Edition, (pp. 99 116). San Diego, CA: Plural Publishing.
- 5. Jacobson GP, Newman CW, **Piker EG**. (2016) Assessing dizziness health related quality of life. In G. P. Jacobson & N. Shepard (Eds.), *Balance Function Assessment and Management*, 2nd Edition, (pp. 163 208). San Diego, CA: Plural Publishing.
- **6.** Jacobson GP, McCaslin DL, **Piker EG**, Gruenwald J, Grantham L, Tegel L. (2016) Topological localization of vestibular system impairment. In G.P. Jacobson & N.Shepard (Eds.) *Balance Function Assessment and Management*, 2nd Edition, (613 630). San Diego, CA: Plural Publishing.
- **7. Piker EG,** Garrison, D. (2014). Clinical Neurophysiology of the Vestibular System, In J. Katz (Ed), *Clinical Handbook of Audiology*, 7th *Edition*, (pp. 381-398). Philadelphia, PA: Lippincott Williams and Wilkins.
- **8.** Jacobson GP, Shepard NT, Dundas JA, McCaslin DL, **Piker EG** (2008). Eye movement recording techniques. In G.P. Jacobson & N.Shepard(Eds.) *Balance Function Assessment and Management*. (pp. 27-44). San Diego, CA: Plural Publishing.

FUNDED RESEARCH SUPPORT

Completed Research Support

2011 - 2012

VR1946, Vanderbilt Institute for Clinical and Translational Research Piker (PI)

"Age-related differences in the frequency tuning of the VEMP"

The goal of this study is to compare the effects of multiple stimulus frequencies and intensities on the amplitude and latency of the cervical and ocular VEMP across different age groups \$1,700

2013 - 2015

NIH Loan Repayment Program Award for Clinical Researchers (initial award) Piker (PI)

"Age-related changes in the vestibulo-ocular reflex and its effects on functional balance"
The goal of this line of research is to assess the prevalence of VOR deficits in aging adults using multiple techniques allowing us to measure low, mid, and high frequency VOR. Additionally, the research will yield new knowledge regarding the relationship between VOR deficits and functional balance measures.

Role: PI

\$60,000

2014 - 2015

American Academy of Audiology Foundation

Piker (PI)

"Vestibulo-ocular reflex and functional balance correlates of aging"

The goal of this study is to better understand the age-related changes on the VOR using both sinusoidal harmonic acceleration and video head impulse testing and to determine any correlates between the VOR and both static and dynamic gait measures in an elderly population. \$10,000

2013 - 2018

R01-AG043438-02S1, National Institute of Aging

Whitson (PI)

"Cognitive changes and brain connectivity in age-related macular degeneration"

This research will yield new knowledge about the types of cognitive problems and brain changes in older adults with vision loss, hearing loss, or both. This is a necessary step toward developing early detection plans, treatments, and solutions.

Role: Consultant

\$305,940

2015 - 2017

MED-El Corporation

Piker (PI)

"Vestibular function after cochlear implantation using soft surgical techniques"

The first goal of this study is to assess the utility of vestibular testing in surgical ears. The second goal is to utilize validated electrophysiological techniques to measure short-term and long-term changes in vestibular function in cochlear implant patients.

\$116,000

2017 - 2018

NIH Loan Repayment Program Award for Clinical Researchers (first renewal)

Piker (PI)

"Prevalence of age-related vestibular impairments and associations with risk of falls"

The aims of this study are 1) to investigate the prevalence of vestibular impairments in all five vestibular peripheral end organs in older adults using sensitive and specific quantitative vestibular assessments, and 2) to investigate the effects of vestibular impairment on anxiety, cognitive decline, physical functioning, and risk of falls.

Role: PI \$30,000

2017

College of Health and Behavioral Studies, mini grant

Piker (PI)

"Visual-vestibular interactions using virtual reality."

\$660

2018

College of Health and Behavioral Studies, mini grant

Piker (PI)

"Screening for balance disorders in community-dwelling elderly."

\$420

2018

Provost's Faculty Development Award

Piker (PI)

"Vestibular evoked myogenic potentials using bone conduction"

\$2,380.85

2018

Provost's Faculty Development Award

Piker (Co-PI)

"Equipment infrastructure for auditory and vestibular research"

\$2,043.00

2018

CHBS Faculty Research Award

Piker (Co-PI)

"Advanced instrumentation aimed at providing a more sensitive measure of vestibular physiology"

\$3,644.00

2019

VEDA Travel Grant

Piker (Mentor)

"Comparison of bone-conducted cervical VEMPs across different transducers"

\$600

2018 - 2019

American Academy of Audiology Foundation

Piker (PI) (mentor)

"Effects of age and middle ear resonance on the frequency tuning of the cVEMP and oVEMP" \$5,000

2019

College of Health and Behavioral Studies, mini grant

Piker (PI)

"Virtual reality for vestibular research and teaching."

\$400

2019 - 2020

American Academy of Audiology Foundation

Piker (Mentor)

"Vestibular psychophysics: The relationship between perception and the vestibulo-ocular reflex." \$2,000

2020

College of Health and Behavioral Studies, mini grant

Piker (PI)

"Vestibular psychophysics."

\$400

2019 - 2021

American Hearing Research Foundation

Piker (Co-PI)

"A more sensitive measure of age-related changes in the vestibular system: Vestibular evoked myogenic potentials (VEMPs) elicited by amplitude-modulated tones."

\$28,028

2019 - 2021

American Academy of Audiology Foundation

Piker (Mentor)

"Effects of tonic muscle activation on amplitude-modulated cervical VEMPs (AMcVEMPs)." \$5,000

2020 - 2021

American Academy of Audiology Foundation

Piker (Mentor)

"Statistical detection of cervical vestibular evoked myogenic potentials."

\$5,000

2022

College of Health and Behavioral Studies, Research/Teaching Grant Piker (Co-PI)

"Instrumentation for transformative vestibular research and teaching Total project funding \$4600

Ongoing Research Support

2022 - 2023

American Academy of Audiology Foundation

Piker (Co-Mentor)

"Age-related changes in the sacculo-colic reflex pathway and changes in the nonlinearity of the vestibular system"

\$5,000

2021 - 2023

American Academy of Audiology Foundation

Piker (Mentor)

"Magnitude estimates of speed of rotation and angular displacement as a function of frequency" \$5,000

INVITED PRESENTATIONS (reverse chronological order)

- * Denotes Student Presenter
- 1. **Piker, E.G.,** Spankovich, C., Gaffney, T., Ballard, A. M. (2021, April) *What no one is saying: The impact of diabetes on hearing and balance.* Virtual webinar hosted by the Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion and the Division of Diabetes Translation.
- 2. **Piker, E.G.** (2021, March). *Patients' experience of vestibular testing (and how audiologists can make it better)*. Invited presentation at the annual meeting of American Academy of Audiology, Virtual format.
- 3. **Piker, E.G.** (2021, March). *Vestibular function after cochlear implantation: What do we know, not know, and why.* Invited presentation at the annual meeting of the Speech-Language-Hearing Association of Virginia (SHAV), Virtual format.

- 4. **Piker, E.G.** (2021, March). *Diabetes and the vestibular system*. Invited presentation at the annual meeting of the Speech-Language-Hearing Association of Virginia (SHAV), Virtual format.
- 5. **Piker, E.G.** (2021, March). *Patients' experience of vestibular testing (and how audiologists can make it better)*. Invited presentation at the annual meeting of the Speech-Language-Hearing Association of Virginia (SHAV), Virtual format.
- 6. **Piker, E. G.,** (2020, December) *Diabetes and the vestibular system.* Invited presentation at the International Online Vestibular Diploma, Audiology-Vestibular International Science Academy, Virtual format.
- 7. **Piker, E.G.,** *Romero, D.J. (2020, November). *Vestibular Grand Rounds*. Virtual presentation on behalf of the American Academy of Audiology
- 8. **Piker, E.G.,** *Romero, D.J. (2020, April). *Vestibular Grand Rounds*. Presentation at the annual meeting of the American Academy of Audiology, New Orleans, LA, (Conference cancelled due to Covid-19).
- 9. **Piker, E.G.** (2020, April). *Patients' experience with vestibular testing (and how audiologists can make it better)*. Invited oral presentation at the annual meeting of the American Academy of Audiology, New Orleans, LA, (Conference cancelled due to Covid-19).
- 10. **Piker, E.G.** (2017, April). *Vestibular Grand Rounds*. Featured Session at the American Academy of Audiology annual meeting, Indianapolis, IN.
- 11. **Piker, E.G.** (2015, August). *Vestibular test utilization in the assessment of dizzy patients*. Invited presentation at the Creating Healthcare Excellence through Education and Research (CHEER) coordinator training workshop, Alexandria, VA.
- 12. **Piker, E.G.** (2013, October) *The effects of age on the cervical and ocular VEMP*. Invited presentation at VA National Center for Rehabilitation Audiology Research supported by the NCRAR Foundation Visiting Scientist program, Portland, OR.
- 13. **Piker, E.G.** (2010, April) *Vestibular and balance clinic grand rounds*. Featured session presented at the annual convention of the American Academy of Audiology, San Diego, CA.

NATIONAL CONFERENCE PRESENTATIONS (reverse chronological order)

^{*} Denotes Student Presenter

- 1. *Jha, R.H., Clinard, C.G., *Lawlor, K., & **Piker E.G**. (2022). Amplitude-modulated-cVEMP: A novel method to assess saccular functioning in aging population. Podium presentation, 14th American Balance Society Conference.
- 2. *Romero, D. J., **Piker, E.G.**, Clinard, C. G. (2022). The effect of gaze angle on objective detection on ocular VEMPs. Podium presentation, 14th American Balance Society Conference.
- 3. *Thorne, A. P., Clinard, C.G., **Piker, E.G.**, *Jones, E., *Brenk, M. (2022). Amplitude-modulated cVEMPs (AMcVEMPs) and their clinical implications versus transient cVEMPs. Poster presentation, American Academy of Audiology annual conference
- 4. Clinard, C.G., **Piker, E.G.,** (2022). Synchrony-based analysis of cVEMPs: Inter-trial coherence. Poster presentation, 49th American Auditory Society Conference
- 5. *Lampasona G, **Piker E**, Ryan C, Gerend P, Rauch SD, Goebel JA, Crowson MG. (2021). A Systematic Review of Clinical Vestibular Symptom Triage, Tools, and Algorithms. Presentation at the 125th AAO-HNSF Annual Meeting and OTO experience. Los Angeles, CA.
- 6. *Jha, R.H., Clinard, C.G., *Lawlor, K., & **Piker E.G**. (2022). Amplitude-modulated-cVEMP: A novel method to assess saccular functioning in aging population. Podium presentation, 14th American Balance Society Conference.
- 7. Jha, R.H., Clinard, C.G., *Lawlor, K., & **Piker E.G** (2022). Amplitude-modulated-cVEMP: A novel method to assess saccular functioning in aging population. Poster presentation, 49th American Auditory Society Conference.
- 8. *Romero, D. J., **Piker, E.G.**, Clinard, C. G. (2022). The effect of gaze angle on objective detection on ocular VEMPs. Podium presentation, 14th American Balance Society Conference.
- 9. *Thorne, A. P., Clinard, C.G., **Piker, E.G.**, *Jones, E., *Brenk, M. (2022). Amplitude-modulated cVEMPs (AMcVEMPs) and their clinical implications versus transient cVEMPs. Poster presentation, American Academy of Audiology annual conference.
- 10. Clinard, C.G., **Piker, E.G.,** (2022). Synchrony-based analysis of cVEMPs: Inter-trial coherence. Poster presentation, 49th American Auditory Society Conference
- 11. *Romero, D.J., **Piker, E.G.,** Clinard, C.G., Zalewski, C. (2021, March). *Objective detection of vestibular evoked myogenic potentials*. Virtual podium presentation at the annual meeting of the American Balance Society, Virtual format
- 12. *Jha, R. H., **Piker, E.G.,** *Romero, D. J. (2021, March). *Role of middle ear transmission characteristics in the frequency tuning of otolith mediated reflexes.* Virtual podium presentation at the annual meeting of the American Balance Society, Virtual format
- 13. *Murray, B., **Piker, E.G.**, *Jones, E. (2021, March). *Role of EMG monitoring on cVEMP testing in preschool aged children*. Virtual poster presentation at the annual meeting of the American Balance Society, Virtual format

- 14. *Hernon, E., **Piker, E.G.,** *Romero, D.J., Gray, L. (2021, March). *Magnitude estimates of angular motion: perception of speed and displacement across vestibular and visual modalities.* Virtual poster presentation at the annual meeting of the American Balance Society, Virtual format
- 15. *Nelson, S., *Romero, D. J., Gray, L., **Piker, E.G.,** (2021, March). *The relationship between the vestibular ocular reflex and vestibular perception in young healthy adults.* Virtual poster presentation at the annual meeting of the American Balance Society, Virtual format.
- 16. *Beacham, V., **Piker, E.G.,** * Jones, E., *Boruch, T., *Civil, R., *Wu, M. (2021, March). *Dual task study of cognitive and postural interference: development of a methodology for use with vestibular disorders.* Virtual poster presentation at the annual meeting of the American Balance Society, Virtual format
- 17. Clinard, C. G., **Piker, E.G.,** (2021, February). *Temporal modulation transfer functions of amplitude-modulated cervical vestibular evoked myogenic potentials*. Virtual presentation at the midwinter meeting of the Association for Research in Otolaryngology. Virtual format.
- 18. *Romero, D.J., **Piker, E.G.,** Clinard, C.G., Zalewski, C. (2021, February). *Objective detection of vestibular evoked myogenic potentials*. Virtual poster presentation at the annual meeting of the Vestibular-Oriented Research Society, Virtual format
- 19. *Lampasona, G., Crowson, M., Ryan, C., **Piker E.G.,** (2021, January). *Systematic review of clinical vestibular symptom triage, tools, and algorithms.* Virtual poster presentation at the AAO-HNSF annual meeting and OTO experience. Virtual format
- *Romero, D.J., **Piker, E.G.**, (2020, April). *Vestibular psychophysics: the relationship between perception and the vestibulo-ocular reflex*. Oral presentation for the Student Research Forum at the annual meeting of the American Academy of Audiology, New Orleans, LA, (Conference cancelled due to Covid-19).
- 21. *Atabek, P.M., **Piker, E.G.,** (2020, April). *Effects of age and middle ear resonance on the frequency tuning of the cVEMP and oVEMP*. Research poster presentation at the annual meeting of the American Academy of Audiology, New Orleans, LA, (Conference cancelled due to Covid-19).
- 22. *Romero, D.J., Clinard, C., **Piker, E.G**. (2020, March). *Statistical detection of cervical vestibular evoked myogenic potentials: effects of stimulus level*. Oral presentation at the annual meeting of the American Balance Society. Scottsdale, AZ.
- 23. Hatton, K., Jacobson, G.P., **Piker, E.G.**, Roberts, R. (2020, March). *Factor analysis of the English translation of the Neuropsychological Vertigo Inventory*. Poster presentation at the annual meeting of the American Balance Society. Scottsdale, AZ.

- 24. *Landon-Lane, R., Jacobson, G.P., **Piker, E.G.**, Hatton, K. (2020, March). *Test-retest reliability of the Dizziness Symptom Profile (DSP)*. Poster presentation at the annual meeting of the American Balance Society. Scottsdale, AZ.
- 25. *Romero, D.J., Clinard, C., **Piker, E.G.** (2020, March). *Statistical detection of cVEMPs: effects of stimulus level*. Poster presentation at the annual meeting of the American Auditory Society. Scottsdale, AZ.
- 26. *Lawlor, K.J., Clinard, C., *Thorne, A., **Piker, E.G**. (2020, March). *Temporal modulation transfer functions of amplitude-modulated cVEMPs in young adults*. Graduate Student Mentored Research Poster presented at the annual meeting of the American Auditory Society. Scottsdale, AZ.
- 27. Clinard, C.G., *Lawlor, K.J., *Thorne, A., **Piker E.G**. (2020, March). *Age-related degradation of amplitude-modulated cervical VEMPs (AMcVEMPs)*. Poster presentation at the annual meeting of the American Auditory Society. Scottsdale, AZ.
- 28. *Thorne, A., Clinard, C., **Piker, E.** (2019, March). *Effects of tonic muscle activation on amplitude-modulated cervical VEMPs* (*AMcVEMPs*), Poster presented at the annual meeting of the American Auditory Society, Scottsdale, AZ
- 29. *Romero, D.R., **Piker, E.G.,** Clinard, C.G., *Thorne, A. (2019, March). *Comparison of bone-conduction cervical VEMPs across different transducers*. Poster presented at the annual meeting of the American Academy of Audiology, Columbus, OH.
- 30. **Piker, E.G.** (2019, February). *Clinical significance of the failure to perceive vertigo in post-caloric period despite robust caloric responses*. Poster presented at the annual meeting of the American Balance Society, Scottsdale, AZ.
- 31. *Romero, D.R., **Piker, E.G.,** Clinard, C.G., *Thorne, A. (2019, February). *Comparison of bone-conduction cervical VEMPs across different transducers*. Podium presentation at the annual meeting of the American Balance Society, Scottsdale, AZ.
- 32. *Van De Wyngaerde, K., Lee, M., Jacobson, G.P., McCaslin, D.L., Pasupathy, K., **Piker, E.G.**, Romero-Brufau, S. (2019, February). *The component structure of the Dizziness Handicap Inventory (DHI): A Reappraisal*. Podium presentation at the annual meeting of the American Balance Society, Scottsdale, AZ.
- 33. **Piker, E.G.** (2018 March). *Minimal detectable change of the caloric test.* Podium presentation at the annual meeting of the American Balance Society, Scottsdale, AZ.
- 34. **Piker, E.G.,** Jacobson, G.P., *Makowiec, K., Krolewicz, S., *Atabek, P. (2018, March). *Is a medial canthus reference electrode electrically indifferent to the oVEMP?* Poster presented at the annual meeting of the American Balance Society, Scottsdale, AZ.

- 35. Jacobson, G.P., **Piker, E.G.** (2018, March). *The development of the Dizziness Symptom Profile (DSP): Preliminary Findings.* Poster presented at the annual meeting of the American Balance Society, Scottsdale, AZ.
- 36. *Makowiec, K., **Piker, E.G.,** Jacobson, G.P., Roberts. R. (2018, March). *VEMPS and Vestibular Migraine: Is there a connection?* Poster presented at the annual meeting of the American Balance Society, Scottsdale, AZ.
- 37. *Patki, A.U, Ronen, O., Kaylie, D.M, Frank-Ito, D.O, **Piker, E.G** (2016, May). *Anatomic variations in temporal bones affect the intensity of nystagmus during warm caloric irrigation*. Podium presentation at annual American Otological Society meeting in Chicago, IL.
- 38. **Piker, E.G,** Carpenter, D., Frank-Ito, D.O. (2016, May). *Computational study of the relationship between temporal bone anatomy and caloric asymmetry*. Poster presentation at annual American Otological Society meeting in Chicago, IL.
- 39. *Carpenter, D.A, **Piker, E.G**, Kaylie, D.M, Frank-Ito, D. (2016, March). *Investigating the role of temporal bone anatomy on caloric stimulation*. Poster presented at the annual American Auditory Society meeting in Scottsdale, AZ.
- *Chandramohan, A, Wrigh,t J, Fernandez, X.D, Zhuang, J, Lad, E.M, Cousins, S, Madden, D, **Piker, E.G**, Tucci, D.L, Whitson, H.E. (2015, May). *The effect of hearing on cognitive evaluation in patients with age-related macular degeneration*. Presidential Poster presented at the annual American Geriatrics Society meeting in National Harbor, MD.
- 41. Unrein, S.C, **Piker, E.G.,** Tucci, D.L, Kaylie, D.M. (2014, December). *Changes in hearing perception with electrical stimulation in users with Meniere's Disease: A case series.* Oral presentation at annual American Cochlear Implant Alliance meeting in Nashville, TN.
- 42. *Kahmke, R.R, *Keeler, J.A, Garrison, D, **Piker, E.G**, Tucci, D.L, Adkins, H.D, Kaylie, D.L. (2014, September) *Vestibular testing data in migraine-associated vertigo*. Oral presentation at annual AAO-HNSF meeting in Orlando, FL.
- 43. **Piker, E.G**, Garrison, D. (2014, March) *Down-beating paroxysmal positional nystagmus: BPPV versus CNS disease.* Podium presentation at the annual American Balance Society Meeting in Scottsdale, AZ.
- 44. Jacobson, G.P, **Piker, E.G.** (2014, March). Concordance and discordance between healthcare providers and patients on patient self-report measures of dizziness. Podium presentation at the annual American Balance Society Meeting in Scottsdale, AZ.
- 45. **Piker, E.G.** (2013, April). The use of subjective self-report measures for the diagnostic assessment and management of dizzy patients. Presentation at the annual convention of the American Academy of Audiology, Anaheim, CA.
- 46. **Piker, E.G.** (2013, March). *Effects of age on the cVEMP and oVEMP I/O functions*. Podium presentation at the annual American Balance Society Meeting in Scottsdale, AZ.

- 47. *Piker, E.G, Jacobson, G.P, Burkard, B.B, McCaslin, D.L, Hood, L.J. (2012, March). *Effects of age on the frequency tuning of the cVEMP and oVEMP*. Poster presented at the annual convention of the American Academy of Audiology, Boston, MA.
- 48. *Piker, E.G, Jacobson, G.P, Tran, A.T, McCaslin, D.L, Hale, S.T. (2012, March) *Spouse perceptions of patient self-reported vertigo severity and dizziness handicap*. Podium presentation at the annual meeting of the American Balance Society, Scottsdale, AZ.
- 49. *Piker, E.G, Jacobson, G.P. (2012, March) Age Effects on the Frequency Tuning of cVEMP and oVEMP. Resident and Graduate Student Poster Session Award, presented at the annual meeting of the American Auditory Society, Scottsdale, AZ.
- 50. *Do, C.K, Jacobson, G.P, ***Piker, E.G.**, McCaslin, D.L, Hood, L.J. (2012, March) *Modulation of the Vestibulo-ocular reflex using visual and non-visual stimuli*. NIH-NIDCD Short Term Research Traineeship Poster presented at the annual meeting of the American Auditory Society, Scottsdale, AZ.
- 51. Jacobson, G.P., McCaslin, D.L, *Piker, E.G., Gruenwald, J., Grantham, S., Tegel, L. (2011, March) *The "Romberg Test of Standing Balance on Firm and Compliant Support Surfaces" is insensitive to the presence of peripheral vestibular system impairment.* Paper presented at the annual meeting of the American Balance Society, Scottsdale, AZ.
- *Piker, E.G., Jacobson GP, McCaslin DL, Hood LJ (2010, March) *Normal characteristics of the oVEMP: Latency, amplitude, threshold, age, and effect of reference electrode site.* NIH Mentored Poster Award, presented at the annual meeting of the American Auditory Society, Scottsdale, AZ.
- 53. Brewer, C., Jacobson, G.P, Grimes, A.M, ***Piker**, **E.G**, Barrett, J., Vesley, B., Roush, J., English, K. (2009, April) *Student academy of audiology: Update and progress*. Featured session presented at the annual convention of the American Academy of Audiology, Dallas, TX.
- *Piker, E.G, Jacobson, G.P, McCaslin, D.L, & Grantham, S. (2009, February) *Psychological co-morbidities and their relationship to self-report handicap in samples of dizzy patients*. NIH Mentored Poster Award, presented at the annual meeting of the American Auditory Society, Scottsdale, AZ.
- 55. *Piker, E.G., Jacobson, G.P. (2008, April) *Psycho-physiological factors in samples of dizzy patients*. Poster presentation at the annual convention of the American Academy of Audiology, Charlotte, NC.
- 56. McCaslin, D.L., Jacobson, G.P, Talent, A.F, Jackson, C.G, & *Piker, E.G. (2008, March) *VEMP abnormalities in 41 patients with posterior fossa lesions*. Poster presentation at the annual meeting of the American Auditory Society, Scottsdale, AZ.

STATE AND LOCAL CONFERENCE PRSENTATIONS (reverse chronological order)

- * Denotes Student Presenter
- 1. Jha, R., Piker EG, Clinard, CG (2022). AMcVEMP in aging population. Graduate student poster presentation at the Showcase of Graduate Student Scholarship and Creative Activity. JMU, Harrisonburg, VA.
- **2.** Grandy, E, **Piker EG.** (2022). The effect of visual cues on postural stability and the implications on individuals with attentional deficit due to aphasia. Presentation at the JMU Honors College Symposium, April 2022.
- **3.** *Jha, R. H., **Piker, E.G.,** *Romero, D. J. (2021, March). *Role of middle ear transmission characteristics in the frequency tuning of otolith mediated reflexes.* Virtual presentation at the JMU Showcase of Graduate Scholarship and Creative Activity, Harrisonburg, VA
- **4.** *Murray, B., **Piker, E.G.,** *Jones, E. (2021, March). *Role of EMG monitoring on cVEMP testing in preschool aged children.* Virtual presentation at the JMU Showcase of Graduate Scholarship and Creative Activity, Harrisonburg, VA.
- *Hernon, E., **Piker, E.G.,** *Romero, D.J., Gray, L. (2021, March). *Magnitude estimates of angular motion: perception of speed and displacement across vestibular and visual modalities.* Virtual presentation at the JMU Showcase of Graduate Scholarship and Creative Activity, Harrisonburg, VA.
- **6.** *Lawlor, K.J., Clinard, C., *Thorne, A., **Piker, E.G.** (2020, April). *Temporal modulation transfer functions of amplitude-modulated cVEMPs in young adults*. Poster presentation at the JMU Showcase of Graduate Student Scholarship and Creative Activity, Harrisonburg, VA.
- 7. *Beacham, V., **Piker E.G.** (2020, January). *Dual task study of cognitive and postural interference: development of a methodology for use with vestibular disorders*. Presentation at JMU's Third Annual Three Minute Thesis, Harrisonburg, VA.
- **8.** *Romero, D.J., **Piker, E.G.,** *Nelson, S., Gray, L. (2019, October). *Magnitude estimation of angular acceleration and displacement using sinusoidal harmonic acceleration.* Poster presented at the JMU Ruth Symposium of Audiology and Hearing Science, Harrisonburg, VA.
- **9.** *Romero, D.R., **Piker, E.G.,** Clinard, C.G., Thorne, A. (2019, April). *Comparison of bone-conduction cervical VEMPs across different transducers*. Poster presented at the JMU Showcase of Graduate Scholarship and Creative Activity, Harrisonburg, VA.
- **10.** *Murray, B., **Piker, E.G.** (2019, April). *Do EMG monitoring and amplitude normalization reduce cVEMP variability in a pediatric population?* Poster presented at the JMU Honors Symposium, Harrisonburg, VA.
- **11.** *Jones, E., **Piker, E.G.** (2019, April). *Cervical vestibular-evoked myogenic potentials* (*cVEMPs*): *Differentiation of inter-neck EMG symmetry between children and adults*. Poster presented at the JMU Honors Symposium, Harrisonburg, VA.

- **12.** *Morales, B., **Piker, E.G.,** *Atabek, P., O'Donoghue, C., Meixner, C. (2019, April). *The feasibility of standardized cognitive assessments for vestibular patients*. Poster presented at the JMU Honors Symposium, Harrisonburg, VA.
- **13.** *Weist, A., **Piker, E.G.,** Irons, J. (2019, March). *Induction of nocebo effects by verbal suggestions during the caloric test.* Poster presented at the SHAV 2019 Conference, Richmond, VA
- **14.** *Morales, B., **Piker, E.G.,** *Atabek, P., O'Donoghue, C., Meixner, C. (2019, March). *The feasibility of standardized cognitive assessments for vestibular patients.* Poster presented at the SHAV 2019 Conference, Richmond, VA
- **15.** *Thorne, A. Clinard, C. **Piker, E.** (2018, October). "Amplitude-modulated cervical vestibular evoked myogenic potentials (AMcVEMPs): Preliminary Findings" Mentored Student Poster presented at the Ruth Symposium in Audiology and Hearing Science, Harrisonburg, VA.
- **16.** *Atabek, P., **Piker, E.** (2018, October). "Effects of age and middle ear resonance on the frequency tuning of the cVEMP and oVEMP" Mentored Student Poster presented at the Ruth Symposium in Audiology and Hearing Science, Harrisonburg, VA.
- **17.** *Fleck, K., **Piker, E.G.** (2018, April). "Does EMG monitoring during a cVEMP matter?" Mentored Student Poster presented at the James Madison University Honors Symposium, Harrisonburg VA.
- **18. Piker, E.G.** (2016, October). "The caloric test: using the newest technology to better understand our oldest vestibular test. Invited presentation at the Ruth Symposium in Audiology and Hearing Science in Harrisonburg, VA.
- **19. Piker, E.G.** (2016, September). "Welcome to Audiology." Keynote speaker at the 11th annual Student Academy of Audiology White Coat Ceremony honoring the class of 2020, Harrisonburg, VA.
- **20. Piker, E.G**, Garrison, D. (2014, September) Update on cVEMP and oVEMP testing in superior canal dehiscence. Invited presentation at the annual meeting of the North Carolina Academy of Audiology, Raleigh, NC.
- **21.** Tucci, D.L, **Piker**, **E.G**, Unrein, S. (2013, November). All Ears: Hearing and Balance Disorders and How We Treat Them. Senior Health Events Discussion Forum for the Senior Health Support of the Triangle.
- **22.** *Piker, E.G., Jacobson, G.P., Burkard, B.B., McCaslin, D.L., Hood, LJ. (2012, April). Effects of age on the frequency tuning of the cVEMP and oVEMP. Poster presented at the second annual Vanderbilt Bill Wilkerson Center poster session, Nashville, TN.

Piker, E.G. Invited Presenter, "The critical role of undergraduate research in CSD", On the Ear Podcast, September 18, 2020, https://www.speechtherapypd.com/podcasts/ear

TEACHING and STUDENT COMMITTEES

Classroom Teaching

James Madison University (2016-present) (Student evaluations available upon request)

CSD 318	Aural Rehabilitation
CSD 490	Special Studies in Communication Sciences and Disorders (Topic: Vestibular lab work)
CSD 513	Anatomy and Physiology of the Central Auditory System
CSD 516	Vestibular Physiology and Testing
CSD 633	Auditory Pathophysiology
CSD 711	Pediatric Audiology
CSD 717, 817	Directed Research in Communication Sciences and Disorders
CSD 718, 818	Independent Study
CSD 920	Doctoral Dissertation in Communication Sciences and Disorders

Duke University Medical Center (2013, 2015)

Lecturer Biennial Audiology/Vestibular Seminar for Otolaryngology Head-Neck Surgical Residents

Vanderbilt University

AUD 5332 Pathology of the Auditory System
Teaching Assistant 2009
Co-Instructor 2010

AUD 5346 Vestibular Sciences I

Guest Lecturer 2009-2011

AUD 5347 Vestibular Sciences II

Guest Lecturer 2009-2011

Clinical Instruction

Duke University Medical Center (2013-2016)

Clinical Preceptor to Au.D. students from University of North Carolina Chapel Hill completing clinical rotations at DUMC, provided one-on-one clinical instruction to a total of 16 students **Awarded the UNC Clinical Preceptor of the Year Award (2016)**

Vanderbilt University 2008-2011

Clinical Preceptor to Au.D. students from Vanderbilt University completing clinical rotations in the Balance Disorders Clinic, ENT clinic, and Pediatric hearing evaluations

JMU Undergraduate Senior Honors Direction and Committee

Grandy, E. (2022) Role: Mentor

"The effect of visual cues on postural stability and the implications on individuals with attentional deficit due to aphasia"

LaPrelle, S. & Casilli, S. (2022) Role: Committee member

"A comparative analysis of online versus lab-based hearing tests"

Krese, K. (2021) Role: Mentor

"A reflection on research to establish normative data for pediatric vestibular testing"

Jones, E. (2019) Role: Mentor

"Cervical vestibular evoked myogenic potentials: differentiation of EMG symmetry between children and adults"

Morales, B. (2019) Role: Mentor

"Creating a cognitive testing battery to determine specific cognitive deficits in vestibular patients"

Presented at 2019 SHAV, awarded 2nd place among Student Posters

Murray, B. (2019) Role: Mentor

"cVEMP EMG monitoring and amplitude normalization in a pediatric population"

CSD Award for Excellence in Undergraduate Research Recipient

Fleck, K. (2018) Role: Mentor

"Effects of EMG monitoring and amplitude normalization on the cVEMP"

Doctoral Dissertations, Direction or Committee

James Madison University

Leggio, L. (2022) Role: Doctoral dissertation committee

"Reality of counseling in pediatric audiology clinical practice"

Nelson, S. (2022) Role: Doctoral dissertation mentor

"Relationship between motion perception and the vestibulo-ocular reflex"

Lawlor, K. (2022) Role: Doctoral dissertation co-mentor

"Temporal modulation transfer functions of amplitude-modulated cVEMPs in young adults"

Thorne, A. (2022) Role: Doctoral dissertation committee

"Effects of tonic muscle activation on amplitude-modulated cervical VEMPs (AMcVEMPs)"

Romero, D. (2021) Role: Doctoral dissertation mentor

"Objective detection of vestibular evoked myogenic potentials"

Anderson, A. (2021) Role: Doctoral dissertation committee

"Assessing word recognition through head turn preference in infants with chronic otitis media."

Surface, E. (2021) Role: Doctoral dissertation committee

"Effect of a small change in auricle projection on sound localization."

Beacham, V. (2021) Role: Doctoral dissertation mentor

"Dual-task study of cognitive and postural interference: development of a methodology for use with vestibular disorders"

Atabek, P. (2020) Role: Doctoral dissertation mentor

"Effects of age and middle ear resonance on the frequency tuning of the cVEMP and oVEMP"

Weist, A. (2020) Role: Doctoral dissertation mentor

"Induction of nocebo effects on nausea and perception of vertigo by verbal suggestions"

Wagner, S. (2020) Role: Doctoral dissertation committee

"The impact of hair covering hearing aid microphones on directional performance"

Audiology Capstones, Direction or Committee

Vanderbilt University

Zarraro, C. (2021) Role: Capstone committee

Au.D. Student at Vanderbilt University

"Between and within test measures on standard balance function testing"

Wang, Y. (2017) Role: Capstone committee

Au.D. Student at Vanderbilt University

"A pilot study of perception variations in individuals during water caloric irrigations"

James, E. (2017) Role: Capstone committee

Au.D. Student at Vanderbilt University

"Development of the Dizziness Symptom Inventory"

Tran, A. (2011) Role: Capstone committee

Au.D. Student at Vanderbilt University

"Spouse perceptions of patient self-reported vertigo severity and dizziness handicap"

Do, C. (2011) Role: Capstone committee

Au.D Student at the University of Maryland

NIH-NIDCD T-35 Short Term Research Traineeship

"Modulation of the Vestibulo-ocular reflex using visual and non-visual stimuli"

ENT Resident Research, Medical Student Research, Direction or Committee

Duke University Medical Center

Kahmke, R.R. (2014) Role: Committee

DUMC ENT Resident Research Project

"Vestibular testing data in migraine-associated vertigo"

Patki, A. (2015) Role: Committee

DUMC ENT Resident Research Project

"Anatomic variations in temporal bones affect the intensity of nystagmus during warm caloric irrigation"

Carpenter, D. (2015) Role: Co-Mentor

DUMC Medical Student Research Project

"Computational study of the relationship between temporal bone anatomy and caloric asymmetry"

SERVICE

Professional and Editorial

Committee Member, American Balance Society, Annual Meeting Planning committee, 2021-2022

Board Member, Virginia Board of Audiology and Speech-Language Pathology (ASLP), appointed by Governor Northam for a 4-year term, 2018-2022

Regulatory committee, Virginia Board of Audiology and Speech-Language Pathology, 2021

Vice Chair, Virginia Board of Audiology and Speech-Language Pathology, 2021-2022

Reviewer, Audiology/Hearing Science Research Travel Award (ARTA), ASHA, 2015, 2016, 2019

Reviewer, Students Preparing for Academic-Research Careers (SPARC) Award, 2015, 2016, 2018

Committee Member, Vestibular Topic Committee for ASHA Convention, 2014, 2018

CEU Editor, Journal of the American Academy of Audiology (JAAA), 2018-present

Editorial Board, American Journal of Audiology (AJA), 2018-present

Editorial Board, Frontiers in Neurology (subsection Neuro-otology), 2018-present

Committee Member, Medical Advocacy Committee, Vestibular Disorders Association (VEDA), 2017-2018

Committee Member, Patient Advocacy Committee, Vestibular Disorders Association (VEDA), 2015-2016

Assistant Editor, Journal of the American Academy of Audiology (JAAA), 2013-present

Board of Directors, American Balance Society, 2013-2016

Board of Directors student member, American Balance Society, 2011-2012

Committee Member, Publications Committee, American Academy of Audiology, 2010-2012

Committee Member, Student Education Program Committee, American Academy of Audiology, 2009-2010

Committee Member, Nominations Committee, National Student Academy of Audiology, 2010

Board of Directors and Secretary, National Student Academy of Audiology, 2009-2010

Task Force Member, Student Academy of Audiology Task Force, American Academy of Audiology, 2008-2009

Ad Hoc Research Grant Reviewer

Medical Research Council of the UK (https://mrc.ukri.org/funding/)

Ad Hoc Journal Reviewer

Audiology & Neurotology

Clinical Neurology and Neurosurgery

Current Pediatric Reviews

Ear and Hearing

European Archives of Oto-Rhino-Laryngology and Head and Neck

International Journal of Audiology

Journal of International Medical Research

Journal of Motor Behavior

Journal of Otology

Otology and Neurotology

Scientific Reports

PLOS ONE

Book or Book Chapter Reviews

NIDCD Interval Book Chapter Review Process, "Historical perspective on rotational testing"

NIDCD Interval Book Chapter Review Process, "The clinical utility of rotational testing"

Thieme Publishing, "Dictionary of Communication Sciences and Disorders"

Department/College

James Madison University

College of Health and Behavioral Studies, Search committee member for CSD AUH

Department of Communication Sciences and Disorders, Reviewer for the McKay Scholarship, 2020

Department of Communication Sciences and Disorders, Faculty Search Committee, 2019-2020

College of Health and Behavioral Studies Deans Advisory Council, 2018-2019

Faculty Advisor, JMU chapter of the Student Academy of Audiology, 2018-present

AuD Council, Department of Communication Sciences and Disorders, 2016-present

Undergraduate Council, Department of Communication Sciences and Disorders, 2016-present

Undergraduate Advising, Department of Communication Sciences and Disorders, 2016-present

Duke University Medical Center

Research Committee, Division of Otolaryngology-Head and Neck Surgery, 2014-2016

Professional Affiliations

Member, Speech-Language-Hearing Association of Virginia (SHAV), 2018-present

Member, American Balance Society (ABS), 2009-present

Member, American Speech-Language Hearing Association (ASHA), 2008-present

Member, American Academy of Audiology (AAA), 2008-present

Member, American Auditory Society (AAS), 2008-present

Member, National Student Speech-Language and Hearing Association (NSSLHA), 2004-2007

Member, National Association of Future Doctors of Audiology (NAFDA), 2004-2008