

Megan Kobel, Au.D., Ph.D.  
Assistant Professor  
Department of Speech, Language, and Hearing Sciences  
University of Arizona  
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### **Education**

- 8/2018-8/2022 Doctor of Philosophy, Speech and Hearing Science  
The Ohio State University, Columbus, OH  
*Dissertation:* Vestibular Thresholds for Assessment of Vestibular Processing in Health and Disease, Co-Advisors: Dan Merfeld, Ph.D., Eric Bielefeld, Ph.D.
- 8/2010-8/2014 Doctor of Audiology, Speech and Hearing Science  
The Ohio State University, Columbus, OH  
*Capstone:* Noise-Induced Changes in Electrocochleography in the Fischer 344/NHsd Rat, Advisor: Eric Bielefeld, Ph.D.
- 9/2006-12/2009 Bachelor of Arts, Linguistics & Speech and Hearing Science  
The Ohio State University, Columbus, OH

### **Training**

- 5/2022-12/2023 Post-doctoral Fellow, Otolaryngology-Head & Neck Surgery, The Ohio State University  
Wexner Medical Center, Columbus, OH
- 7/2014-7/2014 Audiology Extern, Mayo Clinic School of Health Sciences-Florida, Jacksonville, FL

### **Professional Appointments**

- 1/2024-Current Assistant Professor, Speech, Language, and Hearing Sciences, University of Arizona, Tucson, AZ
- 2/2016-8/2018 Clinical Audiologist/Faculty Associate, Otolaryngology-Head and Neck Surgery, University of Texas Southwestern Medical Center, Dallas, TX
- 2/2016-8/2018 Clinical Audiologist, Otolaryngology-Head and Neck Surgery, Children's Medical Center, Dallas, TX
- 8/2014-2/2016 Research Assistant Professor, Anatomy and Neurobiology, Northeast Ohio Medical University, Rootstown, OH

### **Publications**

- Kobel, M. J.,** Wagner, A. R., & Merfeld, D. M. (2023). Vestibular contributions to linear motion perception. *Experimental Brain Research*, 1-18.
- Kobel, M. J.,** Wagner, A. R., & Merfeld, D. M. (2023). Evaluating vestibular contributions to rotation and tilt perception. *Experimental Brain Research*, 1-13.
- Kobel, M. J.,** Wagner, A. R., Oas, J. G., & Merfeld, D. M. (2023). Characterization of Vestibular Perception in Patients with Persistent Postural-Perceptual Dizziness. *Otology & Neurotology*, 10-1097.
- Wagner, A. R., **Kobel, M. J.,** & Merfeld, D. M. (2023). Increased Roll Tilt Thresholds are Associated with Subclinical Postural Instability in Asymptomatic Adults Aged 21 to 84 Years *Frontiers in Aging Neuroscience*, 15, 1207711.
- Kobel, M. J.,** Wagner, A. R., & Merfeld, D. M. (2023) Recurrence Quantification Analysis of Postural Sway in Patients with Persistent Postural Perceptual Dizziness. *Frontiers in Rehabilitation Sciences*, 4, 1142018.
- Teaford, M., Mularczyk, Z. J., Gernon, A., Cannon, S., **Kobel, M.J,** & Merfeld, D. M. (2023). Joint

Contributions of Auditory, Proprioceptive and Visual Cues on Human Balance. *Multisensory Research*, 36(8), 865-890.

- Wagner, A. R., **Kobel, M. J.**, Tajino, J., & Merfeld, D. M. (2022). Improving self-motion perception and balance through roll tilt perceptual training. *Journal of Neurophysiology*, 128(3), 619-633.
- Wagner, A. R., **Kobel, M. J.**, & Merfeld, D. M. (2022). Impacts of rotation axis and frequency on vestibular perceptual thresholds. *Multisensory Research*, 35(3), 259-287.
- Wagner, A. R., **Kobel, M. J.**, & Merfeld, D. M. (2021). Impact of canal-otolith integration on postural control. *Frontiers in Integrative Neuroscience*, 15, 773008.
- Kobel, M. J.**, Wagner, A. R., & Merfeld, D. M. (2021). Impact of gravity on the perception of linear motion. *Journal of Neurophysiology*, 126(3), 875-887.
- Kobel, M. J.**, Wagner, A. R., Merfeld, D. M., & Mattingly, J. K. (2021). Vestibular thresholds: a review of advances and challenges in clinical applications. *Frontiers in Neurology*, 12, 643634.
- Bielefeld, E. C., & **Kobel, M. J.** (2019). Advances and challenges in pharmaceutical therapies to prevent and repair cochlear injuries from noise. *Frontiers in Cellular Neuroscience*, 13, 285.
- Kobel, M.J.**, Le Prell, C. G., Liu, J., Hawks, J. W., & Bao, J. (2017). Noise-induced cochlear synaptopathy: Past findings and future studies. *Hearing research*, 349, 148-154.
- Tang, J., Qian, Y., Li, H., Kopecky, B.J., Ding, D., Ou H.C., DeCook, R., Chen, X., Sun, Z, **Kobel, M.J.**, & Bao, J. (2015). Canertinib induces ototoxicity in three preclinical models. *Hearing research*, 328, 59-66.

### **Podium Presentations**

- Kobel, M.J.**, Wagner, A.R. & Merfeld, D.M, (2023). *Links between Vestibular Perception and Cognition in Healthy Aging*. Vestibular Oriented Research Meeting. Podium presentation. Boulder, CO.
- Kobel, M.J.**, Wagner, A.R. (2023). *Associations between Vestibular Perception and Cognition in Healthy Aging*. American Balance Society: Podium presentation. Scottsdale, AZ.
- Brancalone M.P., **Kobel M.J.**, Hoch C, & Onate J. (2021) *Noise Exposure in a College Marching Band Game Day: A Case Study*. Collegiate Band Director National Association: Athletic Band Symposium; Podium presentation (Virtual).
- Bao, J., Nakamota, K., Hewitt, M., **Kobel, M.**, Spehar, B. & Tye-Murray, N. (2015). *Evidence of New Class of Age-Related Hearing Disorders Defined by Deficits in Temporal Processing*. Association for Research in Otolaryngology; Podium presentation. Baltimore, MD.
- Kobel, M.**, & Zapala, D. (2014). *Clinical Experience with the vHIT*. American Balance Society; Podium presentation. Scottsdale, AZ.
- Lundy, L., Zapala, D., Garry, M., Pratt, T., Shapiro, L., Shelfer, J., Walker, D., **Kobel, M.** (2014). *Anatomic and Physiologic Basis for the Cartilage Cap Technique*. American Balance Society; Podium presentation. Scottsdale, AZ.

### **Poster Presentations**

- Kobel, M.J.**, Oas, J.O., & Merfeld., D.M. (2023) *Associations between postural sway and vestibular perception*. Vestibular Oriented Research Meeting; Poster presentation. Boulder, CO.
- Kobel, M.J.**, Wagner, A.R., Oas, J.O. & Merfeld., D.M. (2022). *Vestibular Perception in Persistent Postural-Perceptual Dizziness*. XXXI Barany Society Meeting, Barany Society, Madrid, Spain, Poster Presentation (Virtual).
- Kobel, M.J.**, Wagner, A.R., & Merfeld., D.M. (2022). *Translation perception and the impact of orientation and gravity*. XXXI Barany Society Meeting, Barany Society, Madrid, Spain, Poster Presentation (Virtual).
- Wagner, A.R., **Kobel, M.J.**, & Merfeld., D.M. (2022). *Impact of Canal-Otolith Integration on Self-Motion Perception and Balance*. XXXI Barany Society Meeting, Barany Society, Madrid, Spain, Poster Presentation (Virtual).
- Wagner, A.R., **Kobel, M.J.**, Tajino, J., & Merfeld D.M. (2022). *Improving Self-Motion Perception through Roll Tilt Perceptual Training*. Combined Sections Meeting, American Physical Therapy Association, San Antonio, TX, Poster Presentation.
- Kobel, M.J.**, Wagner, A.R. & Merfeld., D.M. (2021). *Impact of Otolith Cues on Vertical Canal Perception*.

- National Center for Rehabilitative Auditory Research Conference. Poster presentation (Virtual).
- Wagner, A.R, **Kobel, M.J.**, & Merfeld., D.M. (2021). *Influence of Roll Tilt Perceptual Adaptation on Perceptual Thresholds and Balance*. National Center for Rehabilitative Auditory Research Conference. Poster presentation (Virtual).
- Kobel, M.J.**, Wagner, A.W., & Oas, J.O. (2021). *Onset of Persistent Postural-Perceptual Dizziness after COVID-19*. Ohio Academy of Audiology Annual Conference. Poster presentation.
- Kobel, M.J.**, & Merfeld., D.M. (2021) *Impact of Gravity on the Perception of Linear Motion*. Vestibular Oriented Research Meeting; Poster presentation (Virtual).
- Wagner, A.R, **Kobel, M.J.**, & Merfeld., D.M. (2021) *Vestibular Noise as a Predictor of Postural Sway*. Vestibular Oriented Research Meeting; Poster presentation (Virtual).
- Kobel, M.J.**, & Merfeld., D.M. (2020) *Translation perception and the impact of orientation and gravity*. Vestibular Oriented Research Meeting; Poster presentation (Virtual).
- Kobel, M.**, Liu, D., Tang, J., Lei, D., Li, H. & Bao, J. (2015). *Protective Function of Calcium Channel Blockers Against Noise-Induced Loss of Spiral Ganglion Neurons During Aging*. Association for Research in Otolaryngology; Poster presentation. Baltimore, MD.
- Li, H., **Kobel, M.**, Spehar, B., Tye-Murray, N., Frizina, R. & Bao, J. (2015). *Association study on genetic factors contributing to age-related hearing loss*. Association for Research in Otolaryngology; Poster presentation. Baltimore, MD.
- Kobel, M.**, Zapala, D., Garry, M., Pratt, T., Shapiro, L., Shelfer, J., Walker, D. & Lundy, L. (2014). *Early Clinical Experience with the vHIT*. American Academy of Audiology; Poster presentation. Orlando, FL.
- Kobel, M.**, Bielefeld, E.C. (2013). *Noise-induced changes in electrocochleography in the Fischer344/NHsd rat*. American Academy of Audiology; Poster presentation. Orlando, FL.

## **Funding**

### **Extramural**

- 8/2023-7/2026 “Elucidating links between vestibular function, cognition, and falls.” K01 *National Institute of Deafness and Communication Disorders*.

### **Intramural**

- 10/2021-7/2022 “Characterization of perception in persistent postural-perceptual dizziness”. *Ohio State Alumni Grant for Graduate Research and Scholarship*.

## **Educational Activities**

### **Classroom Instruction**

- 2011- 2013 Teaching Assistant/Laboratory Instructor Introduction to the Art and Science of Sound, The Ohio State University, 3 quarters, 2 semesters
- 3/2016 Lecturer to Speech, Language and Hearing Science course “Vestibular Diagnostics”, University of Texas—Dallas, (2.0 hours)
- 2019-2022 Lecturer to Speech and Hearing Science course “Introduction to Speech and Hearing Science,” The Ohio State University, (two 1.5 hour sessions per semester).
- 2021-2022 Lecturer to Speech and Hearing Science course “Anatomy, Physiology, and Science of Hearing,” The Ohio State University (two 1.75 hour sessions per semester).

### **Clinical Instruction**

- 2016-2018 Outpatient Audiology Clinics at UT Southwestern Medical Center, Parkland Memorial Hospital, and Children’s Medical Center. Supervision of audiology students and audiology externs on diagnostic and rehabilitation services (Average 1.5-2 days per week).

### **CME Instruction/Seminars**

- 3/2018 Lecturer at UT Southwestern Otolaryngology Resident Didactic series, “Rotational Testing for

- 1/2018 Vestibular Diagnostics”, (1.5 hours)  
Lecturer at UT Southwestern Otolaryngology Resident Didactic series, “Clinical Utility of VEMPs and Posturography”, (1.5 hours)
- 12/2017 Speaker at UT Southwestern Audiology Grand Rounds, “Update on Rotational Testing”, (1.0 hours)
- 1/2017 Speaker at UT Southwestern Audiology Grand Rounds, “Tinnitus Retraining Therapy across the Lifespan”, (1.0 hours)

### **Organizational Activities**

#### **Professional Service**

- 2021-2023 Ohio Academy of Audiology Board; Central Region Liaison,  
2021-2022 Ohio Academy of Audiology Conference, Chair  
2022-2023 Ohio Academy of Audiology Conference, Scholarship Chair  
2022-2023 Vestibular Oriented Research Meeting, Conference Oversight and Planning Committee

#### **Professional Membership**

- 2014- 2019 American Academy of Audiology, Fellow  
2014- American Speech Language Hearing Association, Member  
2018- American Balance Society, Member  
2018-2023 Ohio Academy of Audiology, Member

#### **Licenses and Certifications**

- 2014-2016; 2018- Ohio Audiology License,  
2016-2018 Texas Audiology License,  
2014- American Speech Language Hearing Association, Certificate of Clinical Competency-Audiology

#### **Awards and Honors**

- 2022, Graduated Summa Cum Laude (PhD)  
2021, Ohio State Graduate School Grants for Graduate Research and Scholarship Program Recipient  
2014, Graduated Summa Cum Laude (AuD)  
2012, Richard Gans Vestibular Scholarship  
2009, Graduated Summa Cum Laude (BA)