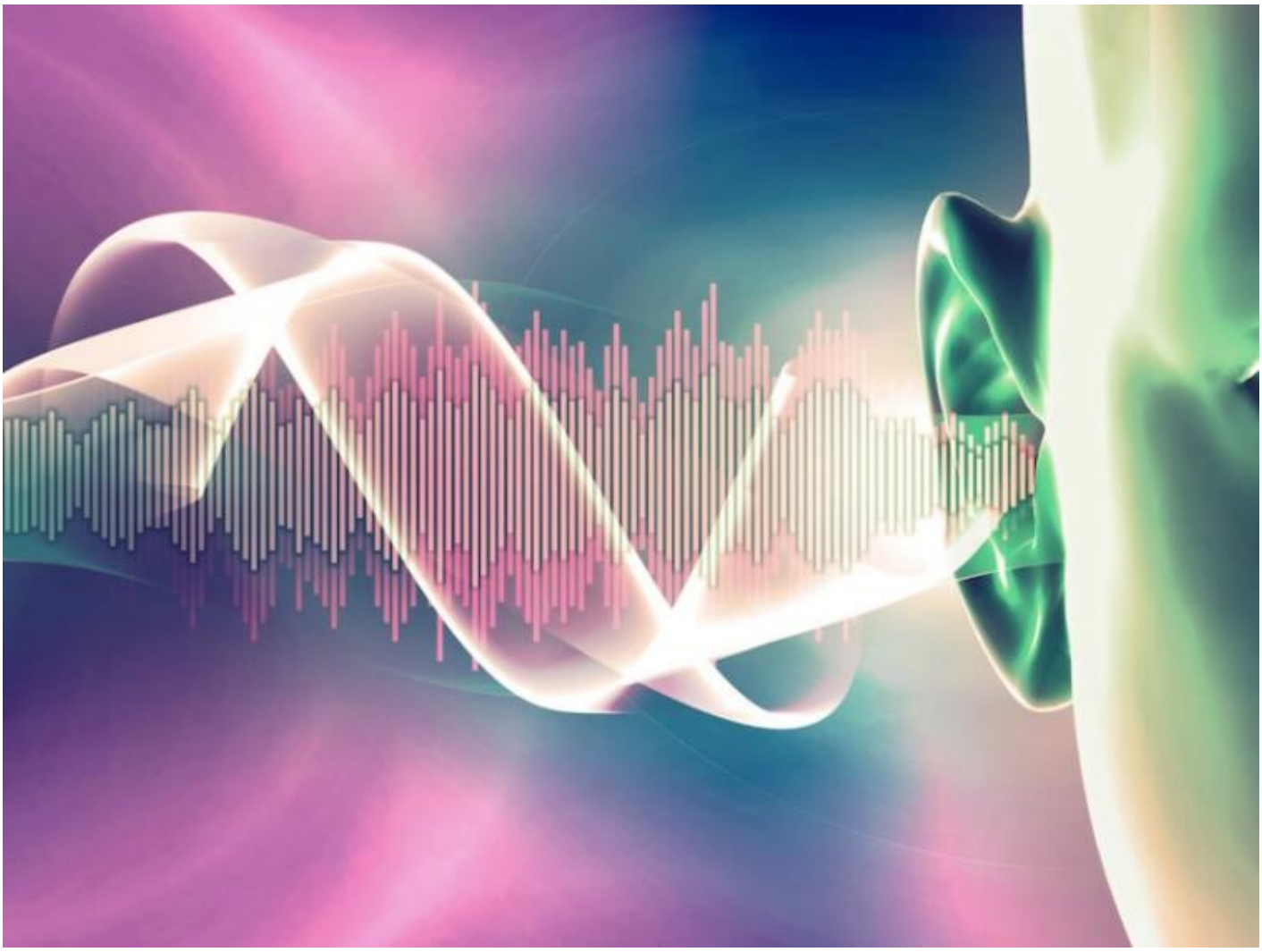
2023 Northwest Auditory & Vestibular Research Meeting



October 19th and 20th 2023

McMenamin's Edgefield Hotel
Troutdale, Oregon

Oregon Hearing Research Center

Hosted by: Oregon Hearing Research Center

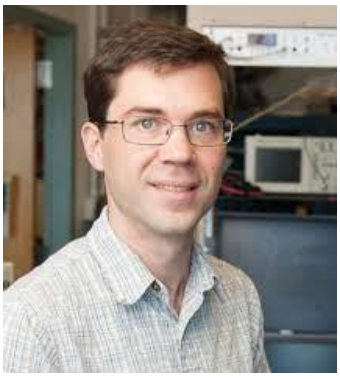
Welcome to the 2023 Northwest Auditory & Vestibular Research Meeting!

Thank you for registering for the biennial NWAVRM. We are excited to return after the pandemic! This year's conference showcases the latest research on the auditory and vestibular systems in the Pacific Northwest. We will highlight our community's work in oral and poster presentations, with topics spanning mechanics, sensory transduction, and central processing of hearing and balance, as well as relevant clinical research.

Meet the 2023 NWAVRM program co-chairs:

Dr. Angela Garinis, PhD CCC-A

Dr. Angela Garinis is a clinician scientist at Oregon Health & Science University- Oregon Hearing Research Center and research investigator at the VA Portland Health Care System's- National Center for Rehabilitative Auditory Research. She received her Master's degree in clinical Audiology in 2003 and a PhD in Speech & Hearing Sciences in 2008 at the University of Arizona in Tucson. Dr. Garinis has funding from the National Institutes of Health and Cystic Fibrosis Foundation to investigate patient and clinical risk factors associated with aminoglycoside-induced ototoxicity in patients with cystic fibrosis. Additionally, she is currently co-chair of the International Ototoxicity Management Group (IOMG) which is a global consortium of international partners to address gaps in the clinical management of individuals who experience hearing loss, tinnitus or balance issues due to ototoxicants.



Dr. Stephen David, PhD

Dr. Stephen David is a scientist and Associate Professor at Oregon Health & Science University- Oregon Hearing Research Center. He received his Ph.D. in Bioengineering from the University of California, Berkeley in 2006 and subsequently completed postdoctoral work in the Institute for Systems Research at the University of Maryland, College Park. The David lab seeks to understand the neurophysiological and computational processes that underlie the remarkable abilities of the auditory brain. A better understanding of auditory neural processing can improve models of communication disorders and improve engineered systems for sensory signal processing.

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October 19th and 20th, 2023

FINAL AGENDA

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Oregon Hearing Research Center

Oregon Health & Science University

Meeting Agenda

Thursday, October 19: McMenamins Edgefield	
8:00-8:45 am	**Registration, Coffee, Poster Set-up**
8:45-9:00 am	**Welcome** Co-chairs: Angela Garinis & Stephen David (OHSU)
9:00-10:30 am	**Invited Talks**
9:00-9:30 am	Dawn Konrad-Martin (NCRAR) *Call in the PROs: using patient reported outcomes to prevent ototoxic hearing loss*
9:30-10:00 am	Andrew Brown (UW) *Spatial hearing via bone conduction: what can we hear with a couple of ears?*
10:00-10:30 am	Jay Gantz (OHSU) *Using robotics in cochlear implant surgery*
10:30-11:00 am	**Coffee Break**
11:00-12:30 pm	**Short Talks**
11:00-11:15 am	George Burwood (OHSU) *The mechanical behavior of the guinea pig and gerbil cochlear apex compared using optical coherence tomography*
11:15-11:30 am	Liesbeth Gijbels (UW) *Exploring the perception of audiovisual speech in linguistic complexity and temporal asynchrony*
11:30-11:45 am	Coty Jasper (WSU) *Estrogen's affect on zebrafish lateral line hair cells*
11:45-12:00 pm	Satya Parida (OHSU) *Adaptive mechanisms facilitate robust performance in noise and in reverberation in an auditory categorization model*
12:00 - 12:15 pm	Francisco Barros (UW) *Vesicular compartmentalization of aminoglycosides in zebrafish hair cells*
12:15 - 1:15 pm	**Lunch**

1:15-2:30 pm	**Short Talks**
1:15-1:30 pm	Janet Cyr (NIH) *Updates from the NIDCD*
1:30-1:45 pm	Hunter Stuehm (NCRAR) *Current practice patterns for management of Veterans with asymmetric sensorineural hearing loss*
1:45-2:00 pm	Larry Trussell (OHSU) *Bringing together physiology and transcriptomics in the cochlear nuclei*
2:00-2:15 pm	Yoshiko Kojima (UW) *Cerebellar activity for compensatory saccade during the head impulse test in the vestibular impaired monkey*
2:15-2:30 pm	Kathryn Powers (UW) *Investigating the role of a new transcriptional regulator in the development of the organ of Corti*
2:30-3:30 pm	**Break, Poster & Bar Setup**
3:30-5:30 pm	**Poster Session & Cash Bar** **see poster presentation table below for authors and titles**
5:30-7:00 pm	**Reception/dinner**
Friday, October 20: McMenamins Edgefield	
8:00-8:45 am	**Registration, Coffee and Pastries**
9:00-10:30 am	**Invited Talks**
9:00-9:30 am	Bonnie Lau (UW) *Binaural processing in autism*
9:30-10:00 am	Avinash Singh Bala (U of O) *Assessing auditory detection and discrimination in infants*
10:00-10:30 am	Allison Coffin (WSU) *From five days to old age: zebrafish models of hearing loss and protection*
10:30-11:00 am	**Coffee Break**
11:00-12:00 pm	**Short Talks**
11:00-11:15 am	Jocelyn Krey (OHSU) *Control of stereocilia length during inner hair cell development*
11:15-11:30 am	Andrea McQuate (UW) *Spaghetti and beans: mitochondrial architecture in zebrafish lateral line hair cells*
11:30-11:45 am	Hector Rincon Iglesias (Universidad de Salamanca) *The nuclei of the lateral lemniscus: unexpected players in the descending auditory pathway*
11:45-12:00 pm	Bertan Kursun and Erik Petersen (UW) *Exploring self-directed hearing-aid fitting with no booth and no audiogram*
12:00 - 1:30 pm	**Closing Remarks and Lunch**

*2023 NWAVRM Poster Presentations

First Name	Last Name	Title
Amal	Aburayyan	*Low level of GOSR2 translation from a non-AUG start codon in a family with profound hearing loss*
David	Audet	*Sound localization training during earplug use: effects of training space and individual auditory factors*
Selina	Baeza-Loya	*Profiling subpopulations of zebrafish vestibular afferents*
Marielle	Beaulieu	*Characterizing inner ear hair cell regeneration in the larval zebrafish*
Jennifer	Brodsky	*Vestibular profiles in patients with Parkinson Disease: a retrospective review*
Amanda	Ciani	*Molecular characterization of type I and II vestibular hair cells in adult mice using RNAseq*
Conner	Corbett	*Exploring mild traumatic brain injury as a moderating factor for speech understanding in complex auditory environments*
Ivan	Cruz	*Lateral line CRISPR screen identifies her9 gene*
Nicole	Dean	*Investigating the influence of auditory streaming cues on binaural pitch fusion*
Rachel	Greiner	*Maximum-likelihood adaptive procedure to characterize spectral resolution: Preliminary results*
Destinee	Halverson	*Transmission of acoustic cues in consonant confusions and its relationship to spectral resolution in listeners with cochlear implant*
Aoi	Hunsaker	*Quantifying impacts of hearing protection devices on sound localization in azimuth and elevation: Refinement of acoustic predictors*
Michela	Mondesir	*Vowel perception: headphones vs. loudspeakers*
Tenzin	Ngodup	*Glial glutamate transporters are essential for auditory coding In the ventral cochlear nucleus*
T. T.	Perry	*Monte Carlo simulation of pure tone audiometry reveals threshold-dependent differences in error*
Olga	Peskova	*Relationships between perception and production errors in normal hearing children, pediatric cochlear implant users and children listening to vocoder simulations*
Erik	Petersen	*Towards a Bayesian adaptive procedure for efficient auditory brainstem response threshold estimation*
Kathryn	Powers	*Ebf1 is necessary for sensory domain establishment within the organ of Corti and essential for hearing in mice*
Daniel Ma Vida	Putterman Echaluse	*Sensorineural hearing loss in persons with cystic fibrosis-related diabetes*
Jwala	Rejimon	*Temporal integration of multisensory stimuli in migraine*
Adrian KC	Lee	*Designing a certificate program in over-the-counter (OTC) hearing technology*
Tianying	Ren	*Patterns of cochlear partition vibration and difference between reticular lamina and basilar membrane vibration*
Corey	Shayman	*Relative reliance on auditory and self-motion cues for navigation*
Noel Isabella	Smith Moreno Stedman	*Modulation of hair cell synaptic elements by glutamate and GABA receptor ligands*
Hunter	Stuehm	*Managing Veterans with asymmetric sensorineural hearing loss: A delphi approach*
Larry	Trussell	*Calcium-sensitive subthreshold voltage oscillations and electrical coupling in principal cells of mouse dorsal cochlear nucleus*
Yunpei	Zhang	*Pericytes control vascular stability and auditory spiral ganglion neuron survival*

Automatic Captioning provided during talks.

Thank you to our Sponsors!

Acknowledgement of volunteers: We would like to thank the following individuals for their time and support of this conference.

Janice Moore **Huong Nguyen** **Daniel Putterman** **Jay Vachhani**

Edward Porsov **John Brigande** **Lina Reiss** **Ma Vida Echaluse**

George Burwood