

# POSTER PRESENTATIONS

## 2025 Vestibular-Oriented Research Meeting

### Poster Abstract 1

#### Comparing the Effects of Sway and Sway Perception in Health and Vestibular Hypofunction

Cesar Arduino<sup>1</sup>, Benjamin Crane<sup>1,2,3</sup>, **Eric Anson**<sup>1,2</sup>

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### Poster Abstract 2

#### Gait Performance and Effects of Cognitive Load in Superior Canal Dehiscence Syndrome

**Raabeae Aryan, PhD**<sup>1</sup>; Jennifer L. Millar, MSc<sup>2</sup>; John P. Carey, MD<sup>3</sup>; Michael C. Schubert, PhD<sup>2,3</sup>; Kathleen E. Cullen, PhD<sup>1,3,4,5</sup>

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### Poster Abstract 3

#### Characterization Profile of Sound-Evoked Vestibular Myogenic Potentials in a Murine Model

**Megan Barber**<sup>1,2,5</sup>, Federica Raciti<sup>2</sup>, Shinelle William<sup>2</sup>, Rachele Sangaletti<sup>2</sup>, Nadine Kerr<sup>1,4,5</sup>, and Suhrud Rajguru<sup>1,2,3,5</sup>

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### Poster Abstract 4

#### Influence of Task Difficulty on Roll-Tilt Perceptual Thresholds

**Shauntelle A. Cannon**, Junichi Tajino, Daniel M. Merfeld  
The Ohio State University, Columbus, OH

### Poster Abstract 5

#### Audio-Vestibular Interactions and its Role in a Navigation Task: Preliminary Results

**Cédric AM**<sup>1,2</sup>, Paromov D<sup>1,3</sup>, Champoux F<sup>1,2,3</sup>, Maheu M<sup>1,2</sup>

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### Poster Abstract 6

#### Exploring Non-Quantal Transmission at the Vestibular Type 1 Hair Cell-Calyx Synapse in Mice

**Donatella Contini, PhD**

University of Chicago, Chicago, IL

University of Illinois, Chicago, IL

### Poster Abstract 7

#### Cholinergic Modulation of Membrane Properties of Type II Vestibular Hair Cells

**Jason Cote, PhD** and Soroush Sadeghi, MD, PhD

Center for Hearing and Balance, Dept. of Otolaryngology – Head and Neck Surgery, Johns Hopkins University, Baltimore, MD

### Poster Abstract 8

#### Variability in Signal-To-Noise Characteristics of Semicircular Canal Afferents Could Reflect Probabilistic Inference and Uncertainty Estimation

**Ahmed Eladly, PhD**<sup>1</sup>; Michael G. Paulin, PhD<sup>3</sup>; Larry F. Hoffman, PhD<sup>1,2</sup>

<sup>1</sup>Department of Head & Neck Surgery, and <sup>2</sup>the Brain Research Institute, David Geffen School of Medicine at UCLA, Los Angeles, California, 90095.

<sup>3</sup>Department of Zoology, University of Otago, Dunedin, New Zealand.

### Poster Abstract 9

#### Morphological Changes Associated with Aging in the Gerbil Vestibular System

**Morgaine Goetti-Meyer MS**, Michelle Perez-Guevara

BS, Katie Rennie PhD, and Anthony Peng PhD

University of Colorado Anschutz

### Poster Abstract 10

#### Increased Computerized Dynamic Visual Acuity and Dizziness Handicap Inventory Scores Observed Pre and Post Unilateral Vestibular Schwannoma resection

**Caroline M. Hardin, DPT**<sup>1</sup>, Andrew J. Kittelson, PT, PhD,<sup>1,2</sup> Angela R. Weston, PT, PhD,<sup>3</sup> Leland E.

Dibble, PT, PhD,<sup>4</sup> Michael C. Schubert, PhD,<sup>5,6</sup> Brian J. Loyd, PT, PhD<sup>1,2</sup>

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#### Poster Abstract 11

##### Comparison of Sway Balance Tests Administer in Person and Remotely Using the SWAY Balance Mobile Application

Brittany Watterson<sup>1</sup>, Maggie Christiansen<sup>1</sup>, and **Anne E. Luebke<sup>1,2</sup>**

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#### Poster Abstract 12

##### Histochemical evidence of beta-amyloid (Ab)-containing plaques in vestibular brainstem in aging 5XFAD\**CBA* Alzheimer's Disease mouse models.

**Anna Lysakowski, Ph.D.<sup>1</sup>**

Edwin Sanchez, B.S.<sup>2</sup>

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#### Poster Abstract 13

##### Characterization of Resurgent Sodium currents in *Maure Crista* Calyx Afferent Terminals

**Nesrien Mohamed Ph.D.**, Frances Meredith Ph.D., Katherine Rennie Ph.D.

Department of Otolaryngology-Head & Neck Surgery, University of Colorado, Anschutz Medical Campus, Aurora, CO.

#### Poster Abstract 14

##### Age-Related Changes in Vestibular Evoked Potential and Auditory Brain Stem Response of Gerbils

**Prashant Pendyala<sup>1</sup>**, Shani Poleg<sup>1</sup>, Achim Klug<sup>1</sup>, Katherine J. Rennie<sup>2</sup>, Anthony Peng<sup>1</sup> \*

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#### Poster Abstract 15

##### Effects of Aging On Vestibular Hair Cell Currents in Gerbils

Antonia González-Garrido<sup>2</sup>, Omar López-Ramírez<sup>1</sup>, Katherine Rennie<sup>1</sup>, **Anthony Peng<sup>2</sup>**

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#### Poster Abstract 16

##### Protective Effects of Non-Invasive Mild Therapeutic Hypothermia in Blast-Induced Hearing and Vestibular Loss Models

**Federica M. Raciti<sup>1</sup>**

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#### Poster Abstract 17

##### Computational Modeling of Ion Recycling in the Peripheral Vestibular System

**Robert M. Raphael**

Department of Bioengineering  
Rice University

#### Poster Abstract 18

##### Cross Axis Vesibulo-Ocular Reflex: Are Changes in Yaw Globally Represented in Pitch

**Nicholas Rozestraten, PT<sup>1</sup>**, Cesar Arduino, BS<sup>2</sup>, Michael C Schubert, PT, PhD<sup>3</sup>, Eric Anson, PT, PhD<sup>1,2,4</sup>

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#### Poster Abstract 19

##### **Variance in Vestibulo-Ocular Reflex Gain from Video Head Impulse Testing Does Not Predict Dizziness Handicap Inventory Scores**

**Jay Swayambunathan<sup>1</sup>**, May Z. Gao<sup>1</sup>, Eric Formeister MD<sup>1</sup>, Kristal Riska PhD AuD<sup>1</sup>

<sup>1</sup>Department of Head and Neck Surgery & Communication Sciences, Duke University School of Medicine

#### Poster Abstract 20

##### **Molecular Heterogeneity of the Vestibular Ganglion**

**Rahilla Tarfa**, Sarath Vijiyakumar, Mi Zhou, David Raible, Litao Tao, Jennifer Stone  
University of Washington

#### Poster Abstract 21

##### **Assessing the Benefits of Noisy Galvanic Vestibular Stimulation Waveforms on Thresholds, Sensorimotor Performance, and After-Effects**

**David R. Temple, PhD** and Torin K. Clark, PhD  
Smead Aerospace Engineering Sciences, University of Colorado, Boulder CO

#### Poster Abstract 22

##### **z-VAD-FMK Mitigates Vestibular Dysfunction and Hair Cell Loss After Acoustic Overexposure**

**Maria Fernanda Yepes, MD<sup>1</sup>**

Federica M Raciti, PhD<sup>2</sup>

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#### Poster Abstract 23

##### **Gait Disorientation as a Proxy for Impaired Spatial Navigation**

Keenan Batts, PT, DPT<sup>1</sup>

Susan L. Whitney, PT, DPT, PhD<sup>2</sup>

Bryan C. Heiderscheit, PT, PhD<sup>3</sup>

**Colin R. Grove, PT, DPT, MS, PhD<sup>1</sup>**

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#### Poster Abstract 24

##### **Development of the Gravity Sensing System in Zebrafish**

**Selina Baeza-Loya, PhD** and David W. Raible, PhD  
Otolaryngology-HNS and Neurobiology, University of Washington, Seattle WA