Towards Hearing Restoration
concepts, challenges and progress

The 4th Auditory and Vestibular
Translational Research Day

Monday December 10, 2018, 8:00am-3:40pm

Location: University of Maryland BioPark Conference Center
801 W. Baltimore Street, Baltimore, MD 21201

Organized by the Center for Comparative and Evolutional Biology of Hearing, of the University of Maryland

This event is partially sponsored by Otonomy and Decibel Therapeutics

Program

8:00-8:40 Gathering and Continental Breakfast

8:40-9:00 Opening Remarks
   Ronna Hertzano, MD, PhD
   University of Maryland School of Medicine
   E. Albert Reece, MD, PhD, MBA
   Dean, University of Maryland School of Medicine
   Catherine Carr, PhD
   University of Maryland, College Park

9:00-9:45 From Development to Degeneration
   An overview of critical steps in inner ear development,
   and review of the status of the inner ear in the
   deafened individual
   Matthew Kelley, PhD
   Section on Developmental Neuroscience, NIDCD, NIH

9:45-10:30 Hair Cell Regeneration: Lessons From Other Species
   Hair cells can regenerated in the chick basilar papilla
   and lateral line but not in mammals;
   The road towards regeneration in Human
   Jennifer Stone, PhD
   Virginia Merrill Bloedel Hearing Research Center
   University of Washington, Seattle

10:30-11:00 Coffee Break

11:00-11:40 Stem Cell Research for Hearing Restoration
   What are stem cells? Why study organoids/stem cells?
   What has been done successfully so far,
   how does this apply to patient care?
   Eri Hashino, PhD
   Indiana University School of Medicine

11:40-12:20 Hair Cell Regeneration In-Vivo in Mouse
   Accepted mouse models for hair cell regeneration,
   the DTR mouse, in-vivo gene transfer to mice, and
   how does this apply to patient care?
   John Brigande, PhD
   Oregon Hearing Research Center, OHSU

12:20-1:00 Lunch Break

1:00-1:35 Transcription Factors as Drivers of Cell Fate
   What are transcription factors?
   Why and how are they used in regenerative studies?
   How does it apply to patient care?
   Ronna Hertzano, MD, PhD
   University of Maryland School of Medicine

1:35-2:10 Gene Editing for Hearing Restoration
   What is gene editing?
   How can it contribute to hearing restoration?
   Gene editing and the FDA - is it an approved therapeutic?
   Wade Chien, MD, FACS
   Johns Hopkins University; NIDCD, NIH

2:10-2:45 Hearing is Not Just Hair Cells
   The fate of neurons with hearing loss?
   Noise exposure?
   Can neuronal loss be reversed?
   Relevance to patient care and cochlear implants.
   Thomas Coate, PhD
   Georgetown University

2:45-3:30 Clinical Panel: Bridging the Gap – Critical Steps and
   Questions in Transitioning from the Bench to the Bedside
   David Eisenman, MD,
   University of Maryland School of Medicine
   Yuri Agrawal, MD, MPH,
   Johns Hopkins University
   Michael Hoa, MD, NIDCD,
   NIH and Georgetown University
   Pamela Roehm, MD, PhD,
   Temple University
   Wade Chien, MD,
   NIDCD, NIH and Johns Hopkins University
   Ronna Hertzano, MD, PhD,
   University of Maryland School of Medicine

3:30-3:40 Closing Remarks
   Sandra Gordon-Salant, PhD
   University of Maryland, College Park

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