

**SHBT 25<sup>th</sup> Anniversary Scientific Program**  
**October 7, 2017, Massachusetts Eye and Ear, Meltzer Auditorium**

**Podium Session 1**

- 9:00 **David Golan**, Dean for Basic Science and Graduate Education, HMS: *Welcome*
- 9:05 **Bertrand Delgutte**, SHBT Program Director: *Overview of the SHBT program*
- 9:15 **Susan Voss**, Smith College  
*Noninvasive clinical measures based on middle-ear mechanics*
- 9:35 **Domenica Karavitaki**, Harvard Medical School  
*New tools for the localization and characterization of hair cell transduction proteins*
- 9:55 **Konstantina Stankovic**, Harvard Medical School  
*Toward personalized diagnosis and therapy of sensorineural hearing loss*
- 10:15 Break
- 10:40 **Nik Francis**, University of Maryland  
*Neural correlates of perception and cognition in auditory cortex*
- 11:00 **Joshua Bernstein**, Walter Reed National Military Medical Center  
*Applied psychophysics: From understanding sensorineural hearing loss to optimizing cochlear-implant function*
- 11:20 **Sridhar Kalluri**, Starkey Hearing Research Center  
*Emerging trends in hearing aids*
- 11:40 **Zachary Smith**, Cochlear Americas  
*Hearing performance with cochlear implants: Beyond speech perception*
- 12:00 Lunch
- 1:00-3:00pm **Student poster session** (see list of posters below)

**Podium Session 2**

- 3:00p **Cara Stepp**, Boston University  
*Evidence for sensorimotor impairment in hyperfunctional voice disorders*
- 3:20 **Laura Dilley**, Michigan State University  
*Speech perception, spoken language input, and language development: A journey from SHBT and beyond*
- 3:40 **John Iversen**, University of California San Diego  
*Rhythms in Music, Language and the Brain*

- 4:00 **Janet Slifka**, Amazon.com  
*Spoken language understanding for Amazon Alexa*
- 4:20 Break
- 4:40 **Manny Simons**, Akouos  
*Intracochlear drug delivery in large animal models*
- 5:00-5:45 **Panel discussion on careers**  
**Michael Heinz** (Chair), Purdue University  
**Roozbeh Ghaffari**, MC10 Inc  
**Annika Imbrie**, Patent Capital Group  
**Courtney Lane**, Anacapa Clinical Research  
**Erik Larsen**, Decibel Therapeutics
- 7pm Dinner, award ceremony & personal statements by alumni

### Acknowledgement

This event was made possible in part through generous contributions from:



## **Poster Session Program**

### **Auditory Biomechanics**

**Darcy Frear**, Eaton-Peabody Laboratories, Massachusetts Eye and Ear  
*Round window stimulation via moldable coupler*

**Peter Bowers**, Eaton-Peabody Laboratories, Massachusetts Eye and Ear  
*Bone-conduction circuit model for chinchilla: Defining parameters by fitting to air-conduction data*

**Salwa Masud**, Eaton-Peabody Laboratories, Massachusetts Eye and Ear  
*The effect of superior canal dehiscence on wideband acoustic immittance in fresh human cadaveric specimens*

**Stefan Raufer**, Eaton-Peabody Laboratories, Massachusetts Eye and Ear  
*Impedance measurements of the human cochlear partition in the base*

### **Inner Ear Biology**

**Andrew Ayoob**, Langer Lab, MIT  
*Fluorescence-based pharmacokinetics in the cochlea's sensory epithelium for spatiotemporal assessment of intracochlear delivery*

**Hannah Goldberg**, F.M. Kirby Neurobiology Center, Boston Children's Hospital  
*Novel gene therapy approaches for treating genetic hearing loss*

**Ariel Yeh**, Broad Institute of MIT and Harvard  
*In vivo base editing of  $\beta$ -catenin to alter post translational modification and induce supporting cell and hair cell proliferation in the mammalian inner ear*

**Jessica Sagers**, Eaton-Peabody Laboratories, Massachusetts Eye and Ear  
*Computational repositioning and preclinical validation of mifepristone for human vestibular schwannoma*

### **Auditory Neuroscience**

**Ed Hight**, Eaton-Peabody Laboratories, Massachusetts Eye and Ear  
*Bilateral high-frequency hearing loss induces a rapid, large-scale plasticity in the cortical organization of sound frequency*

**Kevin Sitek**, McGovern Institute for Brain Research, MIT  
*Diffusion MRI tractography of the human auditory pathway*

**Meenakshi Asokan**, Eaton-Peabody Laboratories, Massachusetts Eye and Ear  
*Homeostatic normalization of sensory gain in auditory corticofugal feedback neurons*

**Kameron Clayton**, Eaton-Peabody Laboratories, Massachusetts Eye and Ear  
*Corticothalamic contributions to active listening and auditory learning*

## **Cognitive Neuroscience and Perception**

**Sara Beach**, McGovern Institute for Brain Research, MIT

*Neural decoding of word identity and acoustic prototypicality during speech perception in listeners with and without aphasia*

**Dana Boebinger**, McGovern Institute for Brain Research, MIT

*The effect of musical experience on the organization of neural stimulus selectivity in human auditory cortex*

**Justin Fleming**, Auditory Neuroscience Laboratory, Boston University

*Sensory modality and task domain drive shared frontal attention networks*

**Kevin Woods**, Department of Brain and Cognitive Sciences, MIT

*Schema learning for the cocktail-party problem*

## **Speech-Language Pathology**

**Rachel Romeo**, McGovern Institute for Brain Research, MIT

*Children's language exposure predicts their neural activation during language processing*

**Jenny Zuk**, Laboratories of Cognitive Neuroscience, Boston Children's Hospital

*Examining relationships between brain structure in infancy and subsequent language skills in preschool*

**Olivia Murton**, Voice Center, Massachusetts General Hospital

*Acoustic speech analysis of patients with decompensated heart failure: a pilot study*