SHBT 25th Anniversary Scientific Program
October 7, 2017, Massachusetts Eye and Ear, Meltzer Auditorium

Podium Session 1

9:00  Bertrand Delgutte, SHBT Program Director: *Welcome and introduction*

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
      New trends in speech technology and language modeling

4:20  Break

4:40  Manny Simons, Akouos
      New approaches for drug delivery to the inner ear

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
      Eric Larsen, Decibel Therapeutics

7pm  Dinner, award ceremony & personal statements by alumni

Acknowledgement

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[Logos of Advanced Bionics, Bose, Decibel Therapeutics, Harvard Medical School, Massachusetts Eye and Ear, Starkey Hearing Technologies]
**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 β-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*