SHBT 25th 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 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*