## AMERICAN OTOLOGICAL SOCIETY

# 156th Annual Meeting PRELIMINARY PROGRAM

## May 6-7, 2023

Boston, MA

AOS Posters will be displayed on Friday & Saturday, May 5-6, 2023

#### **SATURDAY, MAY 6, 2023**

### **1:00 BUSINESS MEETING** (New member introduction)

(Open to members and nonmembers)

#### 1:25 SCIENTIFIC PROGRAM

(*Open to registered Members and Non-members – Badge required for admittance*)

#### 1:25 WELCOME & OPENING REMARKS BY THE PRESIDENT

Lawrence R. Lustig, MD

#### 1:27 PRESIDENTIAL CITATIONS

Robert K. Jackler, MD Samuel H. Selesnick, MD Hinrich Staecker, MD, PhD Ana H. Kim, MD Paul A. Fuchs, PhD

### 1:37 INTRODUCTION OF GUEST OF HONOR

Lawrence R. Lustig, MD

#### 1:39 GUEST OF HONOR LECTURE

### "Precision Medicine & Gene Therapy for Deafness"

Prof. Karen B. Avraham
Dean, Faculty of Medicine
Tel Aviv University
Tel Aviv, Israel

#### 2:24 INTRODUCTION OF ABSTRACTS - BASIC AND TRANSLATIONAL SCIENCE

Ronna Hertzano, MD, PhD, Moderator

#### 2:25 Microneedle Mediated Delivery of siRNA-Lipofectamine is Safe for Inner Ear Gene Therapy

Sharon J. Feng, BA, BS

Aykut Aksit, PhD

Daniella Hébert, BE

Stephen Leong, BA

Elizabeth S. Olson, PhD

Jeffrey W. Kysar, PhD

Anil K. Lalwani, MD

## 2:32 Microbiome of the Ear: A Descriptive Comparison of the External and Middle Ear in the Healthy and Diseased States

Samantha Frank, MD

Ruwaa Samarrai, MD

Nehal Navali, BS

Dong-binh Tran PhD

George M. Weinstock, PhD

### 2:39 Topical Stimulation Induces Progenitor Cell Proliferation in the Tympanic Membrane

Sonia M. Scaria, PhD

Stacey M. Frumm, MD, PhD

Sarah A. Easow

Aaron D. Tward, MD, PhD

## 2:46 Cost-effectiveness of DW-MRI versus Second Look Surgery in Treating Cholesteatoma:

### **A Modeling Study**

Daniel D. Bu, MPP, MBA

Zachary G. Schwam, MD

Enrique Perez, MD

Maura K. Cosetti, MD

## 2:53 Conductive Hearing Loss Associates with Dementia, Neuropsychiatric, and Incident Adverse Life Events and Middle Ear Reconstruction Improves Outcomes – A Multi-National Database Study

Zachary D. Urdang, MD PhD

Amiti Jain, BS

Marwin Li. BS

Thomas L. Haupt, BS

Thomas O. Wilcox, MD

Rebecca C. Chiffer, MD

Richard K. Gurgel, MD

#### 3:00 DISCUSSION

#### 3:05 BREAK WITH EXHIBITORS

#### 3:30 INTRODUCTION OF ABSTRACTS - HEARING LOSS

Nancy M. Young, MD. Moderator

## 3:31 Influence of Cognitive Performance, Sociodemographic Factors, and Pure-Tone Audiometry on Speech Discrimination: A Prospective Population-Based Study of 1,061 Older Adults

John P. Marinelli, MD

Nicholas S. Reed, AuD

Christine M. Lohse, MS

Wanda L. Fussell, MD

Ronald C. Petersen, MD, PhD

Maria Vassilaki, MD, PhD

Matthew L. Carlson, MD

# 3:38 Military and Non-Military TBI Associations with Hearing Loss and Self-Reported Hearing Difficulty among Active-Duty Service Members and Veterans

Charlotte K. Hughes, MD, MPH

Samrita Thapa, MPH

Sarah M. Theodoroff, PhD

Kathleen F. Carlson, PhD, MPH

James D. Schultz, AuD

Leslie D. Grush. AuD

Kelly M. Reavis, PhD, MPH

## 3:45 Hearing Loss and Frailty Among Older Adults: The Atherosclerosis Risk in Communities Study (ARIC)

Sahar Assi, MD

Emmanuel Garcia-Morales, PhD

B. Gwen Windham, MD

Frank Lin, MD, PhD

Karen Bandeen-Roche, PhD

Priya Palta, PhD

Jennifer A. Deal, PhD

Nicholas S. Reed, AuD

Pablo Martinez-Amezcua, MD, PhD

#### 3:52 RESIDENT RESEARCH TRAVEL AWARD

## Metformin Protects Male but not Female Mice Against Noise-Induced Hearing Loss

Catherine L. Kennedy, MD

Benjamin Shuster

Reza Amanipour, PhD

Beatrice Milon, PhD

Priya Patel, MD

Ran Elkon, PhD

Ronna Hertzano, MD, PhD

#### 3:59 DISCUSSION

#### 4:04 INTRODUCTION OF PANEL

Lawrence R. Lustig, MD

#### **4:05 PANEL**

### "The Future is Now: Innovative AI in Otology"

David R. Friedland, MD, PhD, Moderator

Debara L. Tucci, MD, MS, MBA

Francis "Pete" X. Creighton, MD

### 5:05 CLOSING REMARKS/ADJOURNMENT

Lawrence R. Lustig, MD

#### 5:15 AOS MEMBER PHOTOGRAPH

#### 6:30 AOS PRESIDENTS RECEPTION AND DINNER/DANCE

### **SUNDAY, MAY 7, 2023**

#### 7:00 BUSINESS MEETING (Treasurer & Committee Reports)

(Open to members and nonmembers)

#### 7:30 SCIENTIFIC PROGRAM

(Open to registered Members and Non-members – Badge required for admittance)

#### 7:30 WELCOME & OPENING REMARKS BY THE PRESIDENT

Lawrence R. Lustig, MD

#### 7:32 INTRODUCTION OF ABSTRACTS - COCHLEAR IMPLANTS PART I

Wade Chien, MD, Moderator

## 7:33 Do Elderly Patients Benefit from Expanded Centers for Medicare & Medicaid Services (CMS) Criteria for Cochlear Implantation in Bilateral Hearing Loss?

Sarek A. Shen, MD

Nicholas S. Andresen, MD

Stephen P. Bowditch, AuD

Daniel Q. Sun, MD

## 7:40 Post-Cochlear Implant Computer-based Auditory Training Yields Durable Improvements in Cochlear Implant Quality of Life

James R. Dornhoffer, MD

Christian Shannon, BS

Kara C. Schvartz-Leyzac, AuD, PhD

Judy R. Dubno, PhD

Theodore R. McRackan, MD, MSCR

## 7:47 Combining Intraoperative Electrocochleography with Robotics-Assisted Electrode Array Insertion

Rustin G. Kashani, MD

Armine Kocharyan, MD

Douglas M. Bennion, MD, PhD

Camille C. Dunn, PhD

Alexander D. Claussen, MD

Bruce J. Gantz, MD

Marlan R. Hansen, MD

#### 7:54 RESIDENT RESEARCH TRAVEL AWARD

# **Expression of Brain-Derived Neurotrophic Factor in Human Spiral Ganglia Neurons following Cochlear Implantation**

Emily C. Wong, MD

Ivan A. Lopez, PhD

Akira Ishiyama, MD

Gail Ishiyama, MD

## 8:01 The 3D Structure of Cochlear Incomplete Partition Type-II Malformation from Digitised Human Histopathological Specimens: Implications for Cochlear Implantation

Chloe E. Swords, MBBS, MRCS

Alexander R. Geerardyn, MD

Mengyu Zhu, MS

Peizhe Wu, MD

Julie G. Arenberg, PhD, CCC-A

Manohar L. Bance, MBChB, MSc

Alicia M. Quesnel MD

## 8:08 Impact of Stimulus Frequency on Azimuthal Sound Source Localization in Patients with Single-sided Deafness using Cochlear Implants

Chioma Anidi BA

Gerilvn Jones, AuD

Madison Epperson, MD

Nadine Ibrahim MD

Renee M. Banakis Hartl, MD, AuD

#### 8:15 DISCUSSION

#### 8:20 INTRODUCTION OF SAUMIL N. MERCHANT MEMORIAL LECTURE

Lawrence R. Lustig, MD

#### 8:22 SAUMIL N. MERCHANT MEMORIAL LECTURE

## Intralabyrinthine Schwannomas and Hearing Rehabilitation with Cochlear Implants - Lessons Learned About Cochlear Implant and Inner Ear Function"

Prof. Stefan K. Plontke

Chairman, Dept. of Otorhinolaryngology, Head and Neck Surgery

University Medicine Halle (Saale), Germany

#### 9:07 INTRODUCTION OF ABSTRACTS – COCHLEAR IMPLANTS PART II

Ana H. Kim, MD, Moderator

### 9:08 Discrepancies Between Expected and Actual Cochlear Implant-Related Functional Outcomes

Joshua E. Fabie, MD

Christian Shannon, BS

Kara Leyzac, AuD, PhD

Judy R. Dubno, PhD

Theodore R. McRackan, MD, MSCR

### 9:15 Investigating Deferral Rates in Cochlear Implantation: How Often Do Candidates Defer and Why?

Vivian F. Kaul, MD

Bryce P.G. Dzubara, BS

Oliver F. Adunka, MD, MBA

Yin Ren, MD, PhD

## 9:22 Comparison of Speech Recognition and Hearing Preservation Outcomes Between the Mid-Scala and Lateral Wall Electrode Arrays

Ankita Patro, MD, MS

Nathan R. Lindquist, MD

Jourdan T. Holder, AuD, PhD

David S. Havnes, MD

Elizabeth L. Perkins, MD

Kareem O. Tawfik, MD

#### 9:29 Understanding Determinants of Satisfaction and Decisional Regret in Adult Cochlear Implant Users

Christian M. Shannon, MS, MPAff

Judy R. Dubno, PhD,

Theodore R. McRackan, MD, MSCR

## 9:36 Comparison of Pre-Curved versus Straight Electrode Intracochlear Position Using Three-Dimensional Virtual Resectioning from Implanted Human Histopathologic Specimens

Emily K. Gall, MD

Alexander Geerardyn, MD

MengYu Zhu, MS

Jennifer T. O'Malley, BA

Joseph B. Nadol Jr., MD

Alicia M. Quesnel, MD

#### 9:43 DISCUSSION

#### 9:48 MID-MORNING BREAK

### 10:10 INTRODUCTION OF ABSTRACTS - HEARING LOSS PART II/GENDER IN OTOLOGY

Brandon Isaacson, MD

### 10:11 Sound Localization in Active Transcutaneous Bone Conduction Users with Single-Sided Deafness

Madison V. Epperson, MD

Chioma Anidi, BA

Gerilyn Jones, AuD

Nadine Ibrahim, MD

Renee Banakis Hartl, MD, AuD

### 10:18 Representation of Women in Otolaryngology: A Geospatial Analysis

WITHDRAWN BY AUTHOR

#### 10:25 Cigarette Smoking's Association with Sensorineural Hearing Loss - A Population Database Study

Marwin Li, BS

Natalie M. Perlov, BS

Ayan Kumar, MD

Dev Amin, MD

Zachary D. Urdang, MD, PhD

Thomas O. Willcox, MD

Rebecca C. Chiffer, MD

#### 10:32 DISCUSSION

#### 10:36 INTRODUCTION OF CLINICIAN SCIENTIST AWARD

Lawrence R. Lustig, MD

#### 10:38 CLINICIAN SCIENTIST AWARD PRESENTATION

"Audiovisual Communication Devices for Improved Speech Perception"

Gavriel Kohlberg, MD

University of Washington

#### 10:48 INTRODUCTION OF PANEL

Lawrence R. Lustig, MD

#### 10:49 **PANEL**

#### "An Overview of Otologic Disparities Across the Lifespan"

Matthew L. Bush, MD, PhD, MBA, Moderator

Yuri Agrawal, MD, MPH

Jacob Hunter, MD

Susan Emmett, MD, MPH

Cedric Pritchett, MD

Adam Thompson-Harvey, MD

#### 11:50 INTRODUCTION OF INCOMING PRESIDENT

Sujana Chandrasekhar, MD

#### 11:55 CLOSING REMARKS/ADJOURNMENT