This 45th annual meeting brings updates on the latest developments in science, technology and clinical practice in a friendly and supportive environment. The 2018 program promises three days filled with scholarly presentations, engaging discussions and informal social interactions amidst the good weather and charm of Scottsdale, Arizona.

AAS is grateful for the continued support from NIDCD through a R13 conference grant, which has allowed us to bring outstanding Translational Research and Special Session speakers to the meeting while also supporting Student Travel awards. Join us on Friday afternoon as our NIDCD colleagues provide an update on NIDCD funding opportunities for students and young investigators.

The 2018 AAS program features outstanding submitted posters and podium sessions. As in previous years, our meeting will begin Thursday morning with a series of industry-sponsored presentations.

**SPEAKERS AND SPECIAL PROGRAM**

The Carhart Lecturer this year is Harvey Dillon, who will tell us about the diagnosis and remediation of those with auditory processing disorders.

Each year, the NIDCD grant funds a Young Investigator to tell his or her story about their journey on the road to becoming an independent investigator. We will hear from Daniel Rasetshwane, our 2018 Young Investigator at 8:00 AM Friday morning.

Our 2018 Translational Research Speakers include presentations on the epigenetics of hearing and deafness (by Karen Avraham), auditory brainstem implants (by Daniel Lee) and the perception of emotional prosody by those with hearing loss and cochlear implants (by Monita Chatterjee). This year, our Saturday afternoon Special Session will enlighten us about Neuroplasticity, with lectures delivered by Daniel Polley, Dan Sanes and Larry Roberts.
AWARDS

Anil Lalwani (AAS President) will host the Awards Luncheon on Friday. We will all pay tribute to the 2018 recipient of the Life Achievement Award, Glenis Long. It is during this luncheon that the Editor of Ear and Hearing, Brenda Ryals, will present the Editor’s Award for the best manuscript in our journal.

NIDCD support includes Student Travel Awards, which are given to students to attend the Annual AAS meeting, and present a poster summarizing their research efforts. This year, 21 students were selected in the highly competitive Mentored Graduate Student and Resident Research Poster category. In addition, 17 AuD students who completed T35 Research Traineeships are receiving travel support to participate in our meeting.

To encourage the participation of new investigators in our Annual meeting, AAS has established the New Investigator Travel Award to provide financial support to attend the annual meeting. The four 2018 awardees are Hanin Karawani, Viji Easwar, Jamie Desjardins and Rachel Schepelre, whose outstanding abstracts were selected for podium presentations at the meeting.

SOCIAL EVENT

On Friday evening, the annual AAS Social will be held at the Musical Instrument Museum. We hope you will join us in exploring ‘the world of music’.

PROGRAM COMMITTEE

The annual meeting represents a year of planning and requires reviewing the many abstracts submitted. I thank Darla Eastlack, our intrepid Executive Director, for her many organizational talents, and for making sure our 2018 meeting is a huge success. I am indebted to the members of the Program and Abstract Review Committee who have spent many hours reading and critiquing the 200+ abstracts we received to ensure that the 2018 AAS scientific program is of the highest caliber. The 2018 Program Committee members are:

Ruth Bentler  Sumit Dhar  Ravi Krishnan  Ian Mertes  Beth Prieve
Curtis Billings  Pat Feeney  Anil Lalwani  Frank Musiek  Kelly Tremblay
Barbara Cone  Rene Gifford  Sarah Leopold  Peggy Nelson  Chris Zalewski
Rafael Delgado  Fuh-Cherng Jeng  Ryan McCreery  Sheila Pratt

Finally, the meeting would be meaningless without the several hundred people who join us annually in Scottsdale. I thank you, our AAS members and Annual Meeting attendees, and truly hope that you will enjoy the 2018 meeting of the American Auditory Society.

Bob Burkard
PROGRAM CHAIR
THURSDAY, MARCH 1, 2018

7:30 am – 5:00 pm  Registration  SILVERMAN FOYER
8:00 am – 11:55 am  TECHNOLOGY UPDATES

8:00 AM – 8:55 AM  TECHNOLOGY UPDATES, SESSION 1

8:00 AM – 8:25 AM  First Round

Session 1A  Healthcare Consumerism Trends: Practical Updates for Audiologists
Jill Mecklenburger, AuD, ReSound  MOHAVE

Session 1B  A Variable Speed Compressor for All
Francis Kuk, PhD, Widex  ORCA-USA  KIVA-HACIENDA

8:30 AM – 8:55 AM  Repeat of Sessions 1A - 1B

9:00 AM – 9:55 AM  TECHNOLOGY UPDATES, SESSION 2

9:00 AM – 9:25 AM  First Round

Session 2A  Performance of Interacoustics “Next Generation” ASSR for Pediatric Assessments
Yvonne Sininger, PhD, Interacoustics  MOHAVE

Session 2B  Say Hello to Rechargeables Reimagined
Michelle L. Hicks, PhD, Starkey Hearing Technologies  KIVA-HACIENDA
THURSDAY, MARCH 1, 2018

9:30 AM – 9:55 AM
Repeat of Sessions 2A – 2B

10:00 AM – 10:25 AM
First Round

Session 3A
On the Future of Hearing Tech Apps
Annette Mazevski, PhD, Oticon, Inc.  MOHAVE

Session 3B
Improvements to VEMP Testing using SmartEP
Rafael Delgado, PhD, Intelligent Hearing Systems  KIVA-HACIENDA

10:30 AM – 10:55 AM
Repeat of Sessions 3A – 3B

11:00 AM – 11:25 AM
First Round

Session 4A
Improving Own Voice Satisfaction
Thomas Powers, PhD, Sivantos, Inc.  MOHAVE

Session 4B
eAudiology- Bringing Engagement, Ease and Empowerment to Service Provision
Christine Jones, AuD, Phonak  KIVA-HACIENDA

Session 4C
Silver-Zinc Rechargeable Batteries for Hearing Aids: Enabling While Disrupting the Market
Barry Freeman, PhD, Zpower LLC  PALOMA

11:30 AM – 11:55 AM
Repeat of Sessions 4A – 4C

11:55 am – 12:55 pm
LUNCH OUTDOORS ON THE WEST PATIO

12:55 pm – 1:00 pm
POSTER SESSION I SETUP - PUT UP POSTERS

1:00 pm – 1:10 pm
Opening Comments  KIVA-HACIENDA
Anil Lalwani, MD, AAS President
Robert Burkard, PhD, President-Elect and Program Chair

1:10 pm – 2:10 pm
TRANSLATIONAL RESEARCH I  KIVA-HACIENDA
Moderator: Robert Burkard, PhD
Epigenetics of the Auditory System: Implications for Hearing and Deafness
Prof. Karen B. Avraham, PhD
Vice Dean, Sackler Faculty of Medicine, Department of Human Molecular Genetics and Biochemistry
Tel Aviv University, Tel Aviv, Israel
THURSDAY, MARCH 1, 2018

2:15 pm – 4:50 pm  Concurrent Podium Presentations

PODIUM SESSION I: AUDITORY/VESTIBULAR PHYSIOLOGY  MOHAVE I-III
Moderator: Rafael Delgado, PhD

2:15 PM – 2:35 PM  Changing Relationships between Stimulus-Frequency and Distortion-Product OAEs during Aging
Carolina Abdala, PhD, University of Southern California, Los Angeles, CA

2:35 PM – 2:55 PM  Influence of High Sound Exposure on Wave I Amplitude in Collegiate Musicians
Nilesh Washnik, PhD, Ohio University, Athens, OH

2:55 PM – 3:15 PM  Estimating Audiograms from the ABR for Infant Hearing Aid Fittings
Marlene Bagatto, PhD, National Centre for Audiology, Western University, London, ON

3:15 PM – 3:35 PM  Toward A Clinical Test Battery for Cochlear Synaptopathy
Carole Johnson, PhD, University of Oklahoma Health Sciences Center, Oklahoma City, OK

3:35 PM – 3:50 PM  BREAK

3:50 PM – 4:10 PM  Combined Imaging and Electrophysiology After Cochlear Implantation Assess Neural Integrity
Fadwa Alnafjan, MS, Hearing Co-operative Research Centre, Macquarie University, North Ryde, Australia

4:10 PM – 4:30 PM  Auditory Brainstem Response Signal-to-Noise Ratio of Tursiops Truncatus
Robert Burkard, PhD, University At Buffalo, Buffalo, NY

4:30 PM – 4:50 PM  Calcium Dependent Activity in Gravity Receptor Pathways following Otolith Stimulation
Avril Genene Holt, PhD, Wayne State University, Detroit, MI

PODIUM SESSION II: EPIDEMIOLOGY AND COGNITION  KIVA-HACIENDA
Moderator: Kelly Tremblay, PhD

2:15 PM – 2:35 PM  Cadmium and Lead and the 10-yr Incidence of Hearing Impairment
Karen Cruickshanks, PhD, University of Wisconsin, Madison, WI

2:35 PM – 2:55 PM  Kids Nowadays Hear Better Than We Did
Robert Dobie, MD, University Of Texas

2:55 PM – 3:15 PM  Prevalence and Factors Associated with Deafness or Serious Difficulty Hearing
Chuan-Ming Li, PhD, National Institute On Deafness And Other Communication Disorders, Bethesda, MD

3:15 PM – 3:35 PM  Epidemiology of “Hidden Hearing Loss”
Christopher Spankovich, PhD, University of Mississippi Medical Center, Jackson, MS

3:35 PM – 3:50 PM  BREAK

3:50 PM – 4:10 PM  Cognition and Speech-in-Noise Performance: Population-Based Studies
Jennifer Deal, PhD, Johns Hopkins University, Baltimore, MD

4:10 PM – 4:30 PM  Ears, Eyes and Mind: The SENSE-Cog Project
Harvey Abrams, PhD, Starkey Hearing Technologies, Lititz, PA

4:30 PM – 4:50 PM  The Aging and Cognitive Health Evaluation in Elders (ACHIEVE) Randomized Control Trial
Frank Lin, MD, Johns Hopkins University, Baltimore, MD
THURSDAY, MARCH 1, 2018

PODIUM SESSION III: HEARING ACROSS THE LIFESPAN  PALOMA I-III
Moderator: Charles Limb, MD

2:15 PM – 2:35 PM  
Age-Related Temporal Processing Deficits Revealed in Cortical Auditory Evoked Potentials
New Investigator Presentation
Hanin Karawani, PhD, Department Of Hearing And Speech Sciences, University Of Maryland, College Park, MD

2:35 PM – 2:55 PM  
Peripheral Auditory Aging in Humans: Different Measures, Different Perspectives
Sumitrajit Dhar, PhD, Northwestern University, Evanston, IL

2:55 PM – 3:15 PM  
Ear-Canal Area Depends on Age and Gender: Applications to WAI Measurements
Susan Voss, PhD, Smith College, Northampton, MA

3:15 PM – 3:35 PM  
Cochlear Implantation in Young Children with Single Sided Deafness: Characteristics and Early Data
Lisa Park, AuD, University Of North Carolina At Chapel Hill, Chapel Hill, NC

3:35 PM – 3:50 PM  
BREAK

3:50 PM – 4:10 PM  
Phonetic Discrimination in Children Relates to Extended High Frequency Hearing
Cecilia Nakeva von Mentzer, PhD, Dept. Neuroscience, Uppsala University, Uppsala, Sweden

4:10 PM – 4:30 PM  
Psychophysical Tuning Curves in Children and Adults with Differing Histories
Julie Arenberg, PhD, University Of Washington, Seattle, WA

4:30 PM – 4:50 PM  
Mobile Technology for Booth-Less Audiometry in Youth
Deanna Meinke, PhD, University of Northern Colorado, Greeley, CO

5:00 pm – 6:15 pm  
CARHART MEMORIAL LECTURE  KIVA-HACIENDA
Moderator: Anil Lalwani, MD

Perspectives on the Diagnosis and Remediation of Auditory Processing Disorders
Harvey Dillon, PhD
Research Consultant, NAL, Sydney, Australia
Adjunct Professor, Macquarie University
Visiting Professor, University of Manchester

6:30 pm – 7:30 pm  
OPENING RECEPTION  PALOMA GARDEN

FRIDAY, MARCH 2, 2018

7:30 am – 2:00 pm  
Registration  SILVERMAN FOYER

8:00 am – 8:30 am  
YOUNG INVESTIGATOR RESEARCH PRESENTATION  HACIENDA-PALOMA
Moderator: Sumit Dhar, PhD

A Theoretical and Translational Approach to the Study of Hidden Hearing Loss in Humans: Difficulties and Opportunities
Daniel M. Rasetshwane, PhD
Center for Hearing Research, Boys Town National Research Hospital, Omaha, NE
FRIDAY, MARCH 2, 2018

8:30 am – 11:00 am  POSTER SESSION I PRESENTATIONS  WEST PATIO, NORTH AND SOUTH FOYERS
Mentored Graduate Student and Resident Research Posters, T35 Student Research Trainee Posters & General Posters

11:00 am – 12:00 pm  Translational Research II  HACIENDA-PALOMA
Moderator: Robert Dobie, MD

Electrical and Optical Studies of a New Generation Auditory Brainstem Implant
Daniel J. Lee, MD, FACS
Associate Professor
Harvard Medical School
Director of Pediatric Otology and Neurotology
Massachusetts Eye and Ear Infirmary
Boston, MA

12:00 pm – 12:10 pm  POSTER SESSION I - TAKE DOWN POSTERS

12:10 pm – 1:20 pm  Awards Luncheon  MOHAVE-KIVA
Membership Update: Anil Lalwani, MD, AAS President
Life Achievement Award: Glenis R. Long, PhD

1:20 pm – 1:30 pm  POSTER SESSION II SETUP - PUT UP POSTERS

1:30 pm – 4:00 pm  POSTER SESSION II PRESENTATIONS  WEST PATIO, NORTH AND SOUTH FOYERS
Mentored Graduate Student and Resident Research Posters, T35 Student Research Trainee Posters & General Posters

4:00 pm – 5:30 pm  NIDCD RESEARCH PRESENTATION  PALOMA
Moderator: Moderator: Lisa Hunter, PhD

NIDCD FUNDING OPPORTUNITIES FOR STUDENTS AND YOUNG INVESTIGATORS
Alberto Rivera-Rentas, PhD
NIDCD, NIH

5:30 pm – 6:30 pm  Student Social Hour  AGAVE TERRACE

6:00 pm – 9:00 pm  AAS SOCIAL AT THE MUSICAL INSTRUMENT MUSEUM
- TICKET PURCHASE REQUIRED TO ATTEND
Buses will pick up under the bridge (where the hotel bridges together in the east crosswalk, under the restaurant) at 5:45 pm. There will be a late bus available for MIM transport at 7:00 pm. Buses will return to the Embassy Suites at 9:00 pm.
SATURDAY, MARCH 3, 2018

7:30 am – 4:30 pm Registration SILVERMAN FOYER

8:00 am – 9:00 am TRANSITIONAL RESEARCH III HACIENDA-PALOMA
Moderator: Brent Edwards, PhD

The Perception of Emotional Prosody by Listeners with Hearing Loss and Cochlear Implants
Monita Chatterjee, PhD
Boys Town National Research Hospital, Omaha, NE

9:15 am – 12:15 pm Concurrent Podium Presentations

PODIUM SESSION IV: PROCESSING OF COMPLEX STIMULI MOHAVE
Moderator: Harvey Abrams, PhD

9:15 AM – 9:35 AM Speech-Evoked Envelope Following Responses Reveal Frequency-Specific Differences in Development
New Investigator Presentation
Viji Easwar, PhD, University of Wisconsin-Madison, Madison, WI

9:35 AM – 9:55 AM Speech Recognition Performance in Older Spanish-English Bilinguals
New Investigator Presentation
Jamie Desjardins, PhD, University Of Texas At El Paso, El Paso, TX

9:55 AM – 10:15 AM Use of Sentential Context During Recognition of Spectrally Degraded Speech
Aaron Moberly, MD, The Ohio State University, Department of Otolaryngology, Columbus, OH

10:15 AM – 10:35 AM Infants Use Visual Cues to Enhance Speech Perception in Noise
Kaylah Lalonde, PhD, Boys Town National Research Hospital, Omaha, NE

10:35 AM – 10:55 AM BREAK

10:55 AM – 11:15 AM Extended High Frequency Hearing Contributes to Speech Perception in Noise
Lina Motlagh Zadeh, MS, University of Cincinnati, OH

11:15 AM – 11:35 AM Sensing Real-World Environments with Hearing Aids to Understand Listeners’ Perception
Jingjing Xu, PhD, Starkey Hearing Technologies, Eden Prairie, MN

11:35 AM – 11:55 AM The Development and Validation of the Speech Quality Instrument
Stephanie Chen, MD, Washington University At St. Louis, St. Louis, MO

11:55 AM – 12:15 PM Do Earplugs Alter the Intensity or Dynamic Range of Music?
Vishakha Rawool, PhD, West Virginia University, Morgantown, WV
SATURDAY, MARCH 3, 2018

PODIUM SESSION V: HEARING ASSESSMENT & TINNITUS  KIVA
Moderator: Patrick Feeney, PhD

9:15 AM – 9:35 AM  Wideband Reflectance and Electrically Evoked Stapedial Reflexes Following Cochlear Implantation
   New Investigator Presentation
   Rachel Scheperle, PhD, Montclair State University, Bloomfield, NJ

9:35 AM – 9:55 AM  Middle Ear Muscle Contractions are not Dependable Hearing Protection
   Gregory Flamme, PhD, Sasrac, Forest Grove, OR

9:55 AM – 10:15 AM  Evaluating the Fixed-Level Frequency Test (FLFT) as a Clinical Measure of High-Frequency Hearing
   Douglas S. Brungart, PhD, Walter Reed National Military Medical Center, Bethesda, MD

10:15 AM – 10:35 AM  Use of Photovoice for Audiological Outcome Measurement and Rehabilitation
   Gabrielle Saunders, PhD, National Center For Rehabilitative Auditory Research, Portland, OR

10:35 AM – 10:55 AM  BREAK

10:55 AM – 11:15 AM  Tinnitus and Hidden Hearing Loss After Noise Exposure
   Naomi Bramhall, PhD, Va Rr&d, NCRAR, Portland, OR

11:15 AM – 11:35 AM  Electrophysiology and Behavior After Noise
   Serena Dann, AuD, National Center For Rehabilitative Auditory Research, Va Portland Health Care System, Portland, OR

11:35 AM – 11:55 AM  New Bimodal Neuromodulation Treatment for Tinnitus in 326 Patients
   Hubert Lim, PhD, Neuromod Devices Ltd, Dublin, Ireland

11:55 AM – 12:15 PM  Audiologic Management of Patients Reporting Tinnitus
   James Henry, PhD, Va Rr&d National Center For Rehabilitative Auditory Research, Portland, OR

PODIUM SESSION VI: AUDITORY PROSTHESES  HACIENDA-PALOMA
Moderator: Rene Gifford, PhD

9:15 AM – 9:35 AM  Further Evaluation of a Consumer-Decides Hearing-Aid Provision Model
   Larry Humes, PhD, Indiana University, Bloomington, IN

9:35 AM – 9:55 AM  An Observational Approach to Understanding Hearing Aid Success
   Kelly Tremblay, PhD, University of Washington, Seattle, WA

9:55 AM – 10:15 AM  Re-Routing Options for Overcoming Severe-to-Profound Unilateral Hearing Loss in Classrooms
   Erin Picou, PhD, Vanderbilt University School of Medicine, Nashville, TN

   Carole Johnson, PhD, University of Oklahoma Health Sciences Center, Oklahoma City, OK

10:35 AM – 10:55 AM  BREAK

10:55 AM – 11:15 AM  Open Portable Platform For Hearing Aid Research
   Hendrik Kayser, PhD, Medizinische Physik And Cluster Of Excellence “hearing4all”, University Of Oldenburg & Hrtech Ggmbh, Oldenburg, Germany
SATURDAY, MARCH 3, 2018

11:15 AM – 11:35 AM   Utilizing 3D Scanning Techniques to Investigate Ear Canal Dynamics
Elizabeth Eskridge, AuD, Earlens Corporation, Menlo Park, CA

11:35 AM – 11:55 PM   Singing with Cochlear Implants
Justin Aronoff, PhD, University Of Illinois At Urbana-champaign, Champaign, IL

11:55 AM – 12:15 PM   Are the Noisier Speech Regions the Most Detrimental to Intelligibility?
Frederic Apoux, PhD, The Ohio State University, Columbus, OH

12:15 pm – 12:30 pm   Poster Session II – Take Down Posters

12:30 pm – 1:30 pm   LUNCH OUTDOORS ON THE WEST PATIO

1:30 pm – 3:50 pm   SPECIAL SESSION: NEUROPLASTICITY  HACIENDA-PALOMA
Moderator: Beth Prieve, PhD

1:30-2:10 PM: Restoring Central Auditory Processing After Hearing Loss
Daniel Polley, PhD
Massachusetts Eye and Ear / Harvard Medical School, Boston, MA

2:10-2:50 PM: Restoring Cortical Inhibition Improves Perception Following Early Hearing Loss
Dan H. Sanes, PhD
Center for Neural Science, New York University, New York, NY

2:50- 3:30 PM: Neural Plasticity and its Initiating Conditions in Tinnitus
Larry E. Roberts, PhD
McMaster University, Hamilton, Ontario, Canada

3:30-3:50 PM: Panel Discussion

3:50 pm – 4:00 pm   Summary and Adjournment  HACIENDA-PALOMA
The American Auditory Society wishes to thank these companies for their support of complimentary memberships for 2018 AuD Students, PhD Students, and Neurotology Fellows. We are grateful for their generous educational support for these future audiologists, otolaryngologists and hearing researchers.

Intelligent Hearing Systems
Oticon
Sivantos
Sonion
Starkey Hearing Technologies