The American Auditory Society is approved by the American Academy of Audiology to offer Academy CEUs for this activity. The program is worth a maximum of 1.9 CEUs. Academy approval of this continuing education activity does not imply endorsement of course content, specific products, or clinical procedures. Any views that are presented are those of the presenter/CE Provider and not necessarily of the American Academy of Audiology.

The International Hearing Society awards 19 credit hours of CEU’s.

DISCLOSURE POLICY

It is the policy of the American Auditory Society to ensure balance, independence, objectivity and scientific rigor in all its educational activities. All faculty participating in this activity are expected to disclose to the audience any significant financial or non-financial interest or other relationship he/she has that could impair his/her judgment and/or influence or bias the content discussed in an educational presentation.
FRIDAY NIGHT EVENT

Join us on March 4 for our special Friday evening social event at the Phoenix Zoo! Buses will pick up under the bridge where the hotel bridges together in the east crosswalk (under the restaurant) at 5:45 pm and take us to the Phoenix Zoo. The Phoenix Zoo is one of the nation’s largest non-profit zoos, committed to conservation and providing experiences that inspire people and motivate them to care for the natural world. Our event will be hosted in the C.W. & Modene Neely Education and Event Center, overlooking the Main Lake and gibbon island. Safari Trains will give guests the opportunity to explore exhibits.

Join us for an evening of light refreshments and fun! It’s sure to be a wildly good time! Tickets for the Friday night event can be purchased at the AAS Registration Desk.

AAS EXECUTIVE BOARD

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A warm and hearty welcome to everyone!

The annual meeting of the AAS strives to be the premier Translational and Clinical Research meeting in hearing and balance. Expect to find the most current information on technology research, developments in basic and clinical science, and useful information for clinical practice. The AAS is a non-credentialing, apolitical organization for professionals in industry, basic and clinical auditory and vestibular science, otolaryngology and audiology. The goal of the Society is to have frank, open and exciting collaborations among professionals in these specialties. We hope you enjoy the stimulating presentations that spark discussions while enjoying the natural beauty of Arizona.

The ability to bring outstanding speakers and content to the annual meeting is made possible by a grant (R13) from the National Institute on Deafness and Other Communication Disorders (NIDCD). The AAS extends their gratitude to the NIDCD for funding Translational Research, New Investigator and Special Session speakers and support for student travel. A special highlight of the meeting is interacting with students and residents about their research, whose travel to the meeting is funded through NIDCD student travel awards. This year 27 students/residents were selected to present their research in the highly competitive Mentored Graduate Student and Resident Research Poster category. In addition, NIDCD provides travel support for 19 AuD students who completed T35 Research Traineeships to present their research at this meeting. To inspire students and residents, the NIDCD grant funds a successful Young Investigator to tell his/her story about the important aspects to beginning a career as an independent investigator. This year we welcome Dr. Jessica Sullivan from the University of Washington to share her insight. Finally, we welcome our NIDCD colleagues who conduct a session on important information on NIH funding and early career awards.

We are excited to introduce you to our 2016 distinguished Translational Research and Special Session speakers. On Thursday, Dr. Jonathan Peelle, PhD from Washington University in Saint Louis will speak on cognition, aging and speech perception. Dr. Susan Amdt from the University of Freiburg, Germany, will present on Friday about her research on cochlear implants in adults and children with single-sided deafness. On Saturday, we will hear from Dr. Karen Cruickshanks from the University of Wisconsin on the epidemiology of hearing loss in adults. Our Special Session on Saturday afternoon focuses on the controversial topic of therapies for tinnitus, and our speakers are Drs. Carol Bauer, James Henry, Fan Gang Zeng and Steven Cheung. Be prepared for great information and a lively discussion!
The support from the AAS for the annual meeting has traditional and new components. One of our traditional components is the Carhart Lecture, this year given by Dr. Michael Gorga from Boys Town National Research Hospital in Omaha, NE. Dr. Gorga’s research epitomizes the translational nature of this meeting. His laboratory aligns closely with both basic science and the audiology clinic. We are fortunate to hear about his outstanding research, and moreover, benefit from his insight into laboratory-to-clinic research designs. Dr. Gorga’s lecture at 5 pm on Thursday will be followed by a reception that will give attendees an opportunity to meet and talk casually with him and all of the 2016 Speakers. The Awards Luncheon on Friday, hosted by our President Dr. Harvey Abrams, will include tribute to Dr. Fred Linthicum, 2016 recipient of the AAS Life Achievement Award. In addition, Dr. Brenda Ryals, Editor of Ear and Hearing, will present the Editor’s Award for the best manuscript in our journal.

Another tradition of the AAS is the Technology Updates, which are given by industry researchers. These sessions will kick off the meeting on Thursday morning. New this year is that there will be two poster sessions, one from Thursday afternoon through noon on Friday, and from Friday afternoon to noon on Saturday. The poster sessions will be organized by topic area and include submitted posters, Mentored Student/Resident Posters, and T35 posters.

A long-standing tradition of the AAS meeting is the Social Event, which will be held this year at the Phoenix Zoo on Friday evening. The Phoenix Zoo is a non-profit charitable organization that promotes caring for the natural world. There are 1400 animals on display over 125 acres.

A newer tradition funded by the AAS is the New Investigator Travel Award. New investigators, within 5 years of their PhD, post-doctoral training or residency, are eligible to apply for travel awards to attend the annual meeting and present their research. Now in its 3rd year, these awards are extremely competitive. We congratulate those new investigators who won the travel awards, and extend a welcome to all new investigators. We look forward to learning about your research.

As we gather again at the Chaparral Suites Hotel and Resort in sunny Scottsdale, be sure to enjoy the complimentary breakfast, free internet access, hotel happy hour, and complimentary transportation to and from the Phoenix Sky Harbor Airport. As in past years, the Society will provide lunches on the patio on Thursday and Saturday and an Awards Luncheon in the Ballroom on Friday.

I particularly want to thank the members of the Program and Abstract Review Committee for their hard work in assuring that this year’s program is of the highest quality. Their many hours of work are most appreciated.

Program Committee members are:

Carmen Brewer  Shawn Goodman
Jamie Desjardins  Charles Limb
Rafael Delgado  Kelly Tremblay
Jill Firszt  Kathy Vander Werff

The 2016 program of invited speakers, special events, and podium and poster presentations is always a packed and constructive three-days. Above all, we hope to bring to you a gathering filled with science, lively discussion, fun, relaxation, and interaction in a beautiful environment. We appreciate the loyalty of our members and annual meeting attendees. Your membership and attendance is important to us. Please fill out the meeting evaluations so that we can consider your valuable suggestions. We hope that you enjoy our 2016 meeting and look forward to your comments. For those attending for the first time, I hope your experience will encourage you to return. For those who are returning for the 2nd or 43rd time, we have done our best to maintain what you’ve said you like best about this conference.

Beth A. Prieve, PhD

Program Chair
program agenda

WEDNESDAY, MARCH 2, 2016

8:00 am – 12:00 pm  Ear and Hearing Editorial Board Meeting
1:00 pm – 5:00 pm   AAS Executive Board Meeting
1:00 pm – 5:30 pm   Early Registration  WEST FOYER

THURSDAY, MARCH 3, 2016

7:30 am – 5:00 pm  Registration  WEST 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  Binaural Asymmetric Switching Strategy: How it Benefits Your Patients (Tech 1A)
     Jill Mecklenburger, AuD, GN ReSound  MOHAVE I
Session 1B  Ear Wax, Taking up the Challenge (Tech 1B)
     Aart van Halteren, MD, Sonion Nederland B.V.  MOHAVE III
Session 1C  Widex Unique – Effortless Hearing at its Best (Tech 1C)
     Francis Kuk, PhD, Widex  PALOMA I
8:30 AM – 8:55 AM  Repeat of Sessions 1A through 1C
THURSDAY, MARCH 3, 2016

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

9:00 AM – 9:25 AM  First Round

Session 2A  New HEARLab Applications: ABR and CATE (Tech 2A)
George J. Frye, Frye Electronics, Inc. MOHAVE I

Session 2B  Introducing Starkey’s Muse Audio Enhancement (Tech 2B)
Elizabeth Galster, AuD, Starkey Hearing Technologies MOHAVE III

Session 2C  OtoStat 2: Real-ear Measurements Using Forward Pressure Level Calibration (Tech 2C)
Jont Allen, PhD; Patricia S. Jeng, PhD, Mimosa Acoustics; Sarah Robinson, MS, University of Illinois, Urbana-Champaign PALOMA I

Session 2D  It’s Only a Model II: Receiver Vibration Models for Hearing Aid Feedback Simulation (Tech 2D)
Daniel Warren, PhD, Knowles Electronics PALOMA III

9:30 AM – 9:55 AM  Repeat of Sessions 2A through 2D

10:00 AM – 10:55 AM  TECHNOLOGY UPDATES, SESSION 3

10:00 AM – 10:25 AM  First Round

Session 3A  Best Practices and Techniques in Tele-Diagnostics (Tech 3A)
Dave Davis, RemotEAR MOHAVE I

Session 3B  Addressing the Needs of Those with Severe-to-Profound Sensorineural Hearing Loss (Tech 3B)
Annette Mazevski, AuD, PhD, Oticon, Inc. MOHAVE III

Session 3C  New Developments for SmartEP Using Advanced Averaging and Data Analysis (Tech 3C)
Rafael E. Delgado, PhD, Intelligent Hearing Systems PALOMA I

Session 3D  Open Source Mobile Software Platform for Distributed Studies of Hearing (Tech 3D)
Mark Shapiro, Creare, LLC PALOMA III

10:30 AM – 10:55 AM  Repeat of Sessions 3A through 3D

11:00 AM – 11:55 AM  TECHNOLOGY UPDATES, SESSION 4

11:00 AM – 11:25 AM  First Round

Session 4A  Listening Just Got Easier (Tech 4A)
Eric Branda, AuD, Sivantos, Inc. MOHAVE I

Session 4B  Rechargeable Batteries: A Space Age and Green Solution to Power Hearing Aids (Tech 4B)
Barry Freeman, PhD, Zpower, LLC MOHAVE III

Session 4C  Sound Recover II: Taking the High Road to High Frequency Access (Tech 4C)
Christine Jones, AuD, Phonak, LLC PALOMA I

11:30 AM – 11:55 AM  Repeat of Sessions 4A through 4C
THURSDAY, MARCH 3, 2016

12:00 PM - 1:00 PM  LUNCH OUTDOORS ON THE WEST PATIO

12:55 pm – 1:10 pm  POSTER SESSION I SETUP - PUT UP POSTERS

1:10 pm – 1:30 pm  Opening Comments  KIVA-HACIENDA
Harvey Abrams, PhD, AAS President
Beth Prieve, PhD, President-Elect and Program Chair

1:30 pm – 2:30 pm  TRANSLATIONAL RESEARCH I  KIVA-HACIENDA
Moderator: Konstantina Stankovic, MD, PhD
Aging, Hearing Acuity, and Cascading Effects of Perceptual Effort
Jonathan Peelle, PhD, Washington University in Saint Louis, St. Louis, MO

2:45 pm – 4:45 pm  Concurrent Podium Presentations
(Abstracts at www.amauditorysoc.org)

PODIUM SESSION I: HEARING AIDS IN ADULTS AND CHILDREN  MOHAVE I-III
Moderator: Peggy Nelson, PhD

2:45 PM – 3:05 PM  Hearing Aids: User-Adjustment of Output and Spectrum (Pod.I.A.)
Arthur Boothroyd, PhD, San Diego State University, San Diego, CA

3:05 PM – 3:25 PM  Effectiveness of Premium and Basic Hearing Aid Technologies (Pod.I.B.)
Yu-Hsiang Wu, PhD, The University of Iowa, Iowa City, IA

3:25 PM – 3:45 PM  Hearing Aid Gain Preferences in Noisy Rooms (Pod.I.C.)
Peggy Nelson, PhD, University of Minnesota, Minneapolis, MN

3:45 PM – 4:05 PM  Impact of Simulated Microphone Directionality on Monitoring Complex Auditory Scenes (Pod.I.D.)
Julie Cohen, AuD, Walter Reed National Military Medical Center, Bethesda, MD

4:05 PM – 4:25 PM  Application of CROS in Children with Severe Unilateral Hearing Loss (Pod.I.E.)
Meghan Wisneski, AuD, Seattle Children’s Hospital, Seattle, WA

4:25 PM – 4:45 PM  Sentence Recognition in Noise and Reverberation for Children with Hearing Aids (Pod.I.F.)
Ryan McCrery, PhD, Boys Town National Research Hospital, Omaha, NE

PODIUM SESSION II: PHYSIOLOGICAL MEASURES OF THE AUDITORY SYSTEM  KIVA-HACIENDA
Moderator: Shawn Goodman, PhD

2:45 PM – 3:05 PM  High Frequency Transient-Evoked Otoacoustic Emission Measurements in Young Adults (Pod.II.A.)
Douglas Keefe, PhD, Boys Town National Research Hospital, Omaha, NE

3:05 PM – 3:25 PM  The Functional Roles of Hair Cells and Spiral Ganglion Neurons in Complex Listening Situations (Pod.II.B.)
Mark Parker, PhD, Tufts University School of Medicine, Boston, MA
THURSDAY, MARCH 3, 2016

3:25 PM – 3:45 PM  Physiological Measures of Hearing After Exposure to Infant Sleep Machines (Pod.II.C.)
Andrew Dimitrijevic, PhD, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH

3:45 PM – 4:05 PM  Relationship between 20Hz Auditory Steady-State and Transient Auditory Evoked Potentials (Pod.II.D.)
Ozcan Ozdamar, PhD, University of Miami, Coral Gables, FL

4:05 PM – 4:25 PM  Neural Correlates of the Binaural Masking Level Difference in Humans (Pod.II.E.)
Christopher Clinard, PhD, James Madison University, Harrisonburg, VA

4:25 PM – 4:45 PM  The ABR of Bottlenose Dolphins: Noiseburst Risetime and Level (Pod.II.F.)
Robert Burkard, PhD, University at Buffalo, Buffalo, NY

PODIUM SESSION III: AUDIOLOGY / OTOLOGY AND HEARING TESTING TECHNOLOGY  PALOMA I-III
Moderator: Carmen Brewer, PhD

2:45 PM – 3:05 PM  Dynamics of the eVOR Elicited by a Vestibular Prosthesis (Pod.III.A.)
James Phillips, PhD, University of Washington, Seattle, WA

3:05 PM – 3:25 PM  Type 1 Diabetes and Hidden Hearing Loss (Pod.III.B.)
Christopher Spankovich, PhD, University of Mississippi Medical Center, Jackson, MS

3:25 PM – 3:45 PM  Intraoperative Assessment of Air-Bone Gap Closure During Ossiculoplasty (Pod.III.C.)
Krzysztof Morawski, MD, Medical University of Warsaw, Warsaw, Poland

3:45 PM – 4:05 PM  Wideband Acoustic Immitance: Instrument, Ethnicity, and Gender Specific Normative Data (Pod.III.D.)
Navid Shahnaz, PhD, University of British Columbia, Vancouver, Canada

4:05 PM – 4:25 PM  Forward-Pressure Level Calibration Improves Accuracy and Reliability of Pure-Tone Audiometry (Pod.III.E.)
Sarah R. Robinson, MS, University of Illinois at Urbana-Champaign, Urbana, IL

4:25 PM – 4:45 PM  Development of a Mobile Audiometric Headset with High Passive Attenuation (Pod.III.F.)
Odile Clavier, PhD, Creare Llc, Hanover, NH

5:00 PM - 6:15 PM  CARHART MEMORIAL LECTURE  KIVA-HACIENDA
Moderator: Beth Prieve, PhD

Examples of Translational Research from the Human Sensory Physiology Laboratory (HSPL) at BTNRH
Michael Gorga, PhD, Boys Town National Research Hospital, Omaha, NE

6:30 pm – 7:30 pm  Opening Reception  PALOMA GARDEN
FRIDAY, MARCH 4, 2016

7:30 am – 3:00 pm  Registration  WEST FOYER

8:00 am – 8:30 am  YOUNG INVESTIGATOR RESEARCH PRESENTATION  HACIENDA-PALOMA
Moderator: Linda Hood, PhD
Through the Looking Glass: Looking at Aural Habilitation and Academia
Jessica Sullivan, PhD, University of Washington, Seattle, WA

8:30 am – 10:30 am  POSTER SESSION I  WEST PATIO, NORTH AND SOUTH FOYERS
Mentored Graduate Student and Resident Research Posters, T35 Student Research Trainee Posters & General Posters
Abstracts available at www.amauditorysoc.org. Refer to page 22 for poster numbers and categories.

10:30 am – 11:30 am  TRANSLATIONAL RESEARCH II  HACIENDA-PALOMA
Moderator: Jill Firszt, PhD
Treatment of Single-Sided Deafness in Adults and Children
Susan Arndt, MD, University of Freiburg Medical Center, Freiburg, Germany

11:30 am – 12:00 pm  POSTER SESSION I - TAKE DOWN POSTERS

12:00 pm – 1:15 pm  AWARDS LUNCHEON  MOHAVE-KIVA
Membership Update: Harvey Abrams, PhD, AAS President
Life Achievement Award: Fred Linthicum Jr., MD
Ear and Hearing Editor’s Award: Easwar, V, Purcell, D, Aiken, S, Parsa, V, Scollie SD.

1:15 pm – 1:30 pm  POSTER SESSION II SETUP - PUT UP POSTERS

1:30 pm – 2:30 pm  NIDCD RESEARCH PRESENTATION  HACIENDA-PALOMA
Moderator: Beth Prieve, PhD
NIDCD Funding Opportunities for Students and Young Investigators
Amy M. Donahue, PhD, NIDCD, NIH

1:30 pm – 4:00 pm  POSTER SESSION II  WEST PATIO, NORTH AND SOUTH FOYERS
Mentored Graduate Student and Resident Research Posters, T35 Student Research Trainee Posters & General Posters
Abstracts available at www.amauditorysoc.org. Refer to page 22 for poster numbers and categories.

6:00 pm – 9:00 pm  AAS Social at the Phoenix Zoo – Ticket Purchase Required to Attend
Buses will pick up at 5:45 pm under the bridge (where the hotel bridges together in the east crosswalk, under the restaurant). If you miss the first round of buses, there will be another. Don’t miss a great evening!
SATURDAY, MARCH 5, 2016

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

8:00 am – 9:00 am  TRANSLATIONAL RESEARCH III  HACIENDA-PALOMA

Moderator: Anil Lalwani, MD

Aging, Hearing and Health: A Population-based Perspective
Karen J. Cruickshanks, PhD, University of Wisconsin, Madison, WI

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

(abstracts at www.amauditorysoc.org)

PODIUM SESSION IV: COCHLEAR IMPLANTS  MOHAVE

Moderator: René Gifford, PhD

9:15 AM – 9:35 AM  Cochlear Implantation in Cases of Single-Sided Deafness (Pod.IV.A.)
Margaret Dillon, AuD, University of North Carolina at Chapel Hill, Chapel Hill, NC

9:35 AM – 9:55 AM  Physiological Responses to Acoustic Stimulation in Cochlear Implant Users (Pod.IV.B.)
Paul Abbas, PhD, University of Iowa, Iowa City, IA

9:55 AM – 10:15 AM  Low-Frequency Conductive Component Following Cochlear Implantation with Med-El Internal Device (Pod.IV.C.)
Jessi Middaugh, AuD, Oregon Health & Science University, Portland, OR

10:15 AM – 10:35 AM  Evaluation of Fine Structure Coding Strategies in Cochlear Implants (Pod.IV.D.)
Douglas Sladen, PhD, Mayo Clinic, Rochester, MN

10:35 AM – 10:55 AM  REFRESHMENT BREAK

Rene Gifford, PhD, Vanderbilt University, Nashville, TN

11:15 AM – 11:35 AM  Binaural Pitch Fusion with Bilateral Cochlear Implants (Pod.IV.F.)
Lina Reiss, PhD, Oregon Health & Science University, Portland, OR

11:35 AM – 11:55 AM  Enhancing Streaming and Improving Intelligibility in Cochlear Implant Simulation (Pod.IV.G.)
Frederic Apoux, PhD, The Ohio State University Wexner Medical Center, Columbus, OH

11:55 AM – 12:15 PM  Effectiveness of an Automatic Directional Microphone for Cochlear Implant Recipients (Pod.IV.H.)
Smita Agrawal, PhD, Advanced Bionics, LLC, Valencia, CA
SATURDAY, MARCH 5, 2016

PODIUM SESSION V: PSYCHOACOUSTICS, SPEECH PERCEPTION AND LISTENING EFFORT  KIVA
Moderator: Francis Kuk, PhD

9:15 AM – 9:35 AM  Influence of Musical Training on Spectral Ripple Perception (Pod.V.A.)
Evelyn Davies-Venn, PhD, University of Minnesota, Minneapolis, MN

9:35 AM – 9:55 AM  Reduced Masking Release Revealed in Glide Detection for Hearing-Impaired Listeners (Pod.V.B.)
Yingjiu Nie, PhD, James Madison University, Harrisonburg, VA

9:55 AM – 10:15 AM  Non-native English Speakers’ Spectral Integration of English Speech (Pod.V.C.)
Lauren Calandruccio, PhD, Case Western Reserve University, Cleveland, OH

10:15 AM – 10:35 AM  Prevalence and Verification of Communication Deficits in Blast-Exposed Service Members (Pod.V.D.)
Lee Ann Horvat, MS, AuD, Walter Reed National Military Medical Center, Bethesda, MD

10:35 AM - 10:55 AM  REFRESHMENT BREAK

10:55 AM – 11:15 AM  Modality Effects on Sensory and Cognitive Resources in Multitask Listening (Pod.V.E.)
Lynn Bielski, PhD, Walter Reed National Military Medical Center, Bethesda, MD

11:15 AM – 11:35 AM  Changes in Alpha Power and Pupil Dilation During Sentences Degraded by Noise and Channel Vocoder (Pod.V.F.)
Catherine McMahon, PhD, Macquarie University, North Ryde, Australia

11:35 AM – 11:55 AM  Concurrent Processing of Spoken Language and Visual Stimuli in Preschool Children (Pod.V.G.)
Tina M. Grieco-Calub, PhD, Northwestern University, Evanston, IL

11:55 AM – 12:15 PM  Listening Effort Measured Across Different Cochlear Implant Profiles (Pod.V.H.)
Ann Perreau, PhD, Augustana College, Rock Island, IL

PODIUM SESSION VI: TINNITUS, HEARING HEALTH AND EPIDEMIOLOGY  HACIENDA-PALOMA
Moderator: Kelly Tremblay, PhD

9:15 AM – 9:35 AM  The Healthcare Cost of Tinnitus Management in the UK (Pod.VI.A.)
Derek Hoare, PhD, University of Nottingham, Nottingham, United Kingdom

9:35 AM – 9:55 AM  Can we Develop a ‘Silver Bullet’ for Tinnitus’ Nanotheranostic Perspective (Pod.VI.B.)
Anthony Cacace, PhD, Wayne State University, Detroit, MI

9:55 AM – 10:15 AM  A Novel Intervention to Promote Help Seeking for Hearing Loss (Pod.VI.C.)
Gabrielle Saunders, PhD, National Center for Rehabilitative Auditory Research, Portland, OR

10:15 AM – 10:35 AM  Addressing Hearing Health Care Disparities in a Rural Hispanic Community (Pod.VI.D.)
Nicole Marrone, PhD, University of Arizona, Tucson, AZ

10:35 AM - 10:55 AM  REFRESHMENT BREAK
SATURDAY, MARCH 5, 2016

10:55 AM – 11:15 AM  Risk Factors for Hearing Loss among Children Aged 0-17 Years (Pod.VI.E.)
Howard J. Hoffman, MA, NIDCD, NIH, Bethesda, MD

11:15 AM – 11:35 AM  Dizziness and Falls in Older Adults: Iceland AGES-RS Longitudinal Study (Pod.VI.F.)
Chuan-Ming Li, PhD, National Institute on Deafness and Other Communication Disorders, NIH, Bethesda, MD

Robert Dobie, MD, Uthsca, San Antonio, TX

11:55 AM – 12:15 PM  Acoustic Reflex Prevalence in the United States (Pod.VI.H.)
Gregory Flamme, PhD, Western Michigan University, Kalamazoo, MI

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 – 4:00 pm  Special Session: Tinnitus Therapies  HACIENDA-PALOMA
Moderator: Harvey Abrams, PhD

Rational Drug Treatments for Tinnitus – Theory and Practice
Carol A. Bauer, MD, Southern Illinois University School of Medicine, Springfield, IL

Evidence-Based Behavioral Methods of Tinnitus Intervention
James A. Henry, PhD, VA National Center for Rehabilitative Auditory Research, Portland, OR

Striatal Gating of Auditory Phantoms
Steven W. Cheung, MD, University of California, San Francisco, CA

Tinnitus Treatment with Acoustic and Electric Stimulation
Fan-Gang Zeng, PhD, University of California, Irvine, CA

4:00 PM – 4:15 PM  SUMMARY AND ADJOURNMENT  HACIENDA-PALOMA
BINAURAL ASYMMETRIC SWITCHING STRATEGY: HOW IT BENEFITS YOUR PATIENTS
Jill Mecklenburger, AuD, GN ReSound
Binaural Asymmetric Switching Strategy (BASS) was introduced as a directional option in Resound Hearing aids in 2008. Now in its 4th generation, BASS continues to provide optimal speech understanding ability for the end user while at the same time maintaining spatial and environmental awareness. The history and evolution of the system will be discussed, including external research studies validating the BASS concept. Proof of benefit studies conducted with normal hearing and hearing-impaired listeners will be presented.

EAR WAX, TAKING UP THE CHALLENGE
Aart van Halteren, MD, Sonion Nederland B.V.
Hearing Aid failure due to earwax is quite likely the number 1 failure cause. However, when you look at the design solutions to prevent these failures you get the impression that it was something at the bottom of the to-do list: the wax protection is an add-on to the hearing aid and as a result it is often about very small parts, like the well-know grid-inserts, that need to be handled and placed carefully. The wax protection problem is therefore not only a failure protection problem, but just as much a handling problem. When taking this into account, solutions need to be formulated during the design of the hearing aid or e.g. the RIC. Combining the wax protection with other existing parts and/or redesigning some parts with wax protection in mind can result in solutions that are both better at protecting against earwax, and also easier to service by the end-user.

WIDEX UNIQUE – EFFORTLESS HEARING AT ITS BEST
Francis Kuk, PhD, Widex
The Unique hearing aid is designed with the objective to provide effortless hearing for its wearers. Under this design principle, sounds must be captured and processed in such a way that people with both good cognitive capacity and poor cognitive capacity can benefit maximally from the amplification. This involves capturing the right amount of sounds, purifying them in the appropriate way, and processing them to meet the unique needs of the wearer. During this presentation, we will provide the new features of this hearing aid, and report on the clinical studies that have been conducted on this device to demonstrate its efficacy and effectiveness.

NEW HEARLAB APPLICATIONS: ABR AND CATE
George J. Frye, Frye Electronics, Inc.
The National Acoustics Laboratory of Australia has announced the addition of two new applications to the HEARLab cortical auditory evoked potential (CAEP) instrument. The HEARLab aided cortical assessment module (ACA), produced under exclusive license by
Frye Electronics in the United States, is an easy-to-use tool for measuring auditory function for a patient fitted with hearing aids. The two new applications add to the usefulness of the HEARLab by providing auditory brainstem response (ABR) and automated cortical auditory threshold estimate (CATE) testing as well. For decades ABR has been known as a proven method of auditory nerve potential measures. The CATE provides an objective measure of threshold audibility, giving results similar to those obtained by use of the traditional audiogram, a subjective behavioral threshold test. The CATE, however, is useful in obtaining auditory thresholds of those who are unable or unwilling to communicate with the clinician. Further, this application has an automatic test mode that produces a four-frequency by two-ear audiogram with a single button press. It uses octave wide multiple frequency test stimuli to improve the CAEP signal to noise ratio and hence reduce test time. CAEP tests can only be done while the patient is awake but quiet. ABR is preferably done with the patient asleep.

INTRODUCING STARKEY’S MUSE AUDIO ENHANCEMENT

Elizabeth Galster, AuD, Starkey Hearing Technologies

Starkey’s Muse and Halo 2 product lines feature advanced signal processing designed specifically for music listening. Muse Audio Enhancement includes a music memory and automatic music classification. Previous recommendations for optimizing music sound quality were based on experience with outdated hearing aid components and signal processing; recognizing this, we set out to explore new approaches for amplification of music. Designed for purposeful music listening, the music memory includes a completely novel prescriptive rationale and compressor that are paired with validated settings for advanced signal processing features. The goal of this prescription is to ensure audibility of soft music and provide acoustic transparency of the hearing aid for louder music. Automatic classification of music identifies music in the hearing aid user’s environment and automatically adapts the hearing aid signal processing for music listening. When compared to traditional fitting strategies, Muse Audio Enhancement improves sound quality for music. Clinical trials included hearing impaired participants with a wide range of music experiences. Laboratory paired comparisons assessed preferred settings for several music genres. Additionally, participants reported on sound quality and preference based on field listening experience. Laboratory and field data indicated significant preference for Muse Audio Enhancement relative to traditional amplification.

OTOSTAT 2: REAL-EAR MEASUREMENTS USING FORWARD PRESSURE LEVEL CALIBRATION

Jont Allen, PhD; Patricia S. Jeng, PhD, Mimosa Acoustics; Sarah Robinson, MS, University of Illinois, Urbana-Champaign

Real-ear measurements are an important calibration tool for removing variability in audiologic measurements caused by the earphone placement in the ear canal. Standard real-ear methods work best at frequencies below 2 kHz. However, for insert-earphone measurements, standing waves due to ear-canal and tympanic membrane (TM) delay can affect measurements at higher frequencies important to speech perception (e.g., up to 7 kHz). Level errors due to standing waves can be > 20 dB in magnitude. Forward pressure level (FPL) calibration is a technique that allows for precise removal of standing wave artifacts. With FPL calibration, stimuli may be delivered to the middle ear without such level errors. In this presentation we will describe how ear-canal standing waves originate, and how FPL can be used to remove their effects. FPL-calibrations are enabled by wideband acoustic immittance (WAI) measurements, specifically, measurement of the middle-ear acoustic reflectance, made using a Thévenin-calibrated probe. Advances in WAI technology allow for characterization of the TM immittance and more accurate calibration of acoustic stimuli, independent of probe placement in the ear canal. Mimosa Acoustics’ OtoStat 2.1, is now available for research trials. It makes WAI and DPOAE measurements, including FPL-calibrated DPOAE - all available in one hand held unit.

IT’S ONLY A MODEL II: RECEIVER VIBRATION MODELS FOR HEARING AID FEEDBACK SIMULATION

Daniel Warren, PhD, Knowles Electronics

In 2014, Knowles presented an AAS Technical Update about modeling hearing aid receivers with a basic lumped parameter circuit wherein model parameters are fit to measured data by nonlinear optimization. These models accurately predict the receivers’ output sound pressure level (SPL) given an electrical input and the acoustic design of the aid, external tubing, and coupler. In the current work these models are extended to also predict forces exerted by the receiver onto the hearing aid during operation. The new vibration enabled receiver models can be used as sources of force in larger simulations of hearing aid systems, with a goal of predicting gain before feedback. As a bonus, an improved model for the 0.4cc coupler will be presented.
BEST PRACTICES AND TECHNIQUES IN TELE-DIAGNOSTICS

Dave Davis, RemotEAR

I’ve made several presentations over the last few years extolling the virtues of developing a tele-audiology program, and offering information and sharing knowledge gained. This talk will focus on the key things that must be implemented to make for a successful tele-diagnostics program, ranging from planning to process to technical issues and logistics. Specific topics include proper planning and study design, protocol development, various system configurations depending on the clinical goals, and technical implementation guidelines. Attendees will gain practical knowledge about how to structure a successful tele-audiology diagnostics program.

ADDRESSING THE NEEDS OF THOSE WITH SEVERE-TO-PROFOUND SENSORINEURAL HEARING LOSS

Annette Mazevski, AuD, PhD, Oticon, Inc.

Progress is constantly occurring in terms of advances in understanding the nature and impact of severe-to-profound hearing loss. An overview of known issues facing this population is presented, along with discussion of frequency lowering technology. This presentation will introduce new, high performance hearing instruments with proprietary features developed to address the unique needs of those with severe-to-profound hearing loss.

NEW DEVELOPMENTS FOR SMARTEP USING ADVANCED AVERAGING AND DATA ANALYSIS

Rafael E. Delgado, PhD, Intelligent Hearing Systems

SmartEP, one of the most advanced evoked potential systems in the market, just got even smarter. New features of SmartEP will be presented. The new version of the software allows data to be acquired and stored in sweep blocks, providing options for various averaging, processing and data quality statistical measures. Averaging techniques provided include linear, weighted and median averaging. Acquired data may be reaveraged at any time using any of the provided methods in order to improve data quality depending on specific recording conditions. Individual data blocks are stored and retrieved in a totally transparent manner to the user in order to reduce data clutter but are easily utilized by the system and can also be displayed and exported for further data analysis using any external statistical package. Data blocks may also be displayed using three-dimensional data representation techniques in order to easily evaluate changes in recording conditions over time and using advanced spectral phasor techniques. Statistical analysis of the sweep block data may also be conducted in order to determine the coherence and reliability of responses. Automated averaging stopping rules using residual noise measures have also been incorporated to allow data to be acquired automatically with consistent quality and noise levels.

OPEN SOURCE MOBILE SOFTWARE PLATFORM FOR DISTRIBUTED STUDIES OF HEARING

Mark Shapiro, Creare, LLC

In collaboration with the Hearing Center of Excellence and the Walter Reed National Military Medical Center (WRNMMC), we present on the Open Source mobile software (Open TabSINT) that enables researchers to administer customized hearing-related tests and questionnaires on tablets located across multiple sites. Currently, this system is in use by WRNMMC in a study of functional hearing performance with active military subjects across multiple sites, and by Creare in several other hearing studies. Researchers create and modify protocols by editing a text-based template and uploading it to the tablets. The templates allow researchers to administer speech-in-noise tests and questionnaires with currently over 25 response areas designed for various inputs and outputs such as multiple choice, button grids, Likert scales, trade-offs, image maps, videos, wave files, etc. Open Source TabSINT also includes an application programming interface for plugins, allowing external contributors to build hardware and software that can interface directly with TabSINT, leveraging the existing user interface and data management. Now housed on GitHub, this software is available to researchers across the world to use and adapt to their specific needs. Researchers with engineering resources can also contribute to the repository to further improve the features and robustness of this software.

LISTENING JUST GOT EASIER

Eric Branda, AuD, Sivantes, Inc.

For hearing instrument fittings, audibility and speech understanding in background noise are important topics. One factor, however, which does not receive the attention that it should, is the amount of listening effort required by the patient to realize this optimal fitting in everyday use. Generally, listening effort relates to speech understanding, and as effort increases additional cognitive resources are required to keep up. We would assume that hearing aid features known to improve speech understanding in background noise (e.g., directional technology) would...
reduce listening effort and fatigue even more, but research in this area is not conclusive. To obtain a reliable objective assessment of listening effort, we investigated a procedure that takes the phase information of the ongoing oscillatory EEG activity into account. The participants in this study were eleven adults with bilaterally symmetrical downward-sloping sensory/neural hearing losses. They were all experienced hearing aid users. Subjects were presented with speech-in-noise listening tasks for two separate hearing aid features, and EEG activity was recorded when a given feature was on vs. off. To establish the relationship between this objective measure and the participants’ behavioral perceptions, subjects rated listening effort on a 13-point scale. For each feature, the phase distribution of the EEG revealed a significant reduction in listening effort when the feature was activated. Behavioral ratings completed at the same time as the EEG recordings were in good agreement with the objective data. Using an objective assessment of brain activity shows that features of this new technology platform significantly reduce listening effort. The expected outcome is improved benefit and satisfaction with hearing aids.

RECHARGEABLE BATTERIES: A SPACE AGE AND GREEN SOLUTION TO POWER HEARING AIDS
Barry Freeman, PhD, Zpower, LLC

Rechargeable batteries were ranked among the most compelling features sought by hearing aid consumers according to MarkeTrak9. Yet, today, only a small number of rechargeable hearing aids are dispensed as audiologists are concerned about their reliability, length of wear time, cost, and availability in multiple products. ZPower has invested a decade of research to develop a rechargeable solution for hearing aids. Adopting the same silver-zinc chemistry used for space and military applications, ZPower has developed rechargeable hearing aid batteries that are recyclable, last a full day on a single charge, and are replaced annually. This presentation will introduce the ZPower Rechargeable System which enables audiologists to retrofit new and existing hearing aids and make them rechargeable by replacing the original battery door with a new ZPower door. The new door includes electronics to accommodate the ZPower silver-zinc rechargeable battery and charge contacts which interface with a charger. Research results confirmed the ZPower Rechargeable System has no effect on the firmware, electronics or electro-acoustic performance of hearing aids; provided patients a full day wear-time with streaming; a single battery lasts one year or the equivalent of about 100 zinc-air batteries; and is fully recyclable. The ZPower Rechargeable System provides a space-age power solution for hearing aids.

SOUND RECOVER II: TAKING THE HIGH ROAD TO HIGH FREQUENCY ACCESS
Christine Jones, AuD, Phonak LLC

SoundRecover, Phonak’s non-linear frequency compression (NLFC) algorithm is designed to aid in the audibility of high frequency sounds by compressing high frequency input to a lower frequency region. Audibility of high frequencies is particularly imperative for children, and can be challenging with traditional amplification, which typically has a limited bandwidth (<6000 Hz) (McReery et al., 2014). Previously, SoundRecover has functioned on a calculated cutoff frequency threshold, at which all frequencies above are compressed into a lower frequency region. Despite the known benefits of SoundRecover in providing audibility of high frequency sounds, there is a cost-benefit tradeoff. The goal has always been to ensure audible high frequency sounds are audible, which can be difficult when also balancing the preservation of vowel formants, harmonics, and minimizing pitch-distortions. It is possible that the previous SoundRecover setting, dictated by one set frequency threshold value, may require a decision between greater audibility at the cost of comfort or potential distortion, or vice-versa.

The new SoundRecover 2 algorithm addresses these limitations by enabling frequency compression, with the added attention to frequency protection. This algorithm also acts adaptively; only providing frequency compression when it is needed. In this way SoundRecover 2 leads to more natural sound quality and minimal vowel distortion, while still providing high frequency access. This presentation will outline the differences between the original SoundRecover and the new SoundRecover 2, and will detail the studies completed on SoundRecover 2 with both pediatric and adult hearing aid populations.
AGING, HEARING ACUITY, AND CASCADING EFFECTS OF PERCEPTUAL EFFORT
Jonathan Peelle, PhD
Washington University in Saint Louis, St. Louis, MO

How does hearing impairment affect the way our brains process speech? I will review data from behavioral and brain imaging studies that speak to the added cognitive demands associated with acoustic challenge, exploring these issues in the context of a brain-based model of speech comprehension. Evidence from multiple sources is consistent with a shared resource framework of speech comprehension in which domain-general cognitive processes supported by discrete regions of frontal cortex are required for both auditory and linguistic processing. The specific patterns of neural activity depend on the difficulty of the speech being heard, as well as the hearing and cognitive ability of the listeners. Although frequently studied in the context of adult aging, these principles have broader implications for our understanding of how auditory and cognitive factors interact during spoken language comprehension.

AGING, HEARING AND HEALTH: A POPULATION-BASED PERSPECTIVE
Karen J. Cruickshanks, PhD
Professor, Departments of Population Health Sciences and Ophthalmology and Visual Sciences, School of Medicine and Public Health, University of Wisconsin-Madison, Madison, WI

Although “from bench to bedside” is an often quoted mantra in biomedical science many advances improving the public’s health come from changes outside of clinical practice. Epidemiological studies help to bridge or translate basic/clinical research findings to the community or societal level. Rather than a one-directional process, translational research is a circle with population-based approaches providing important insights which refine basic and clinical research in order to achieve improvements in public health. As part of the population-based epidemiological studies of hearing in Beaver Dam, Wisconsin, the burden and risk of age-related hearing impairment (ARHI) have been quantified and modifiable factors associated with the risk of ARHI identified. Results from these studies and others will be discussed to highlight current challenges and research gaps which need to be addressed to prevent hearing loss, provide appropriate hearing health care for the millions with ARHI, and improve quality of life for older adults.

TREATMENT OF SINGLE-SIDED DEAFNESS IN ADULTS AND CHILDREN
Susan Arndt, MD; Frederike Hassepass; Thomas Wesarg; Antje Aschendorff; Roland Laszig, University of Freiburg Medical Center, Freiburg, Germany

Despite a normal hearing capacity in one ear and the ability to understand language in quiet surroundings, patients suffering from single-sided deafness (SSD) experience significant challenges in various everyday situations. This is particularly evident when the language reaches the deaf ear in additional background noise.

The limitation of the auditory function may result in a fatigue due to increased listening effort and can have a major impact on psychosocial factors. Furthermore, the localization capacity is significantly limited, as bilateral hearing is mandatory for spatial hearing.

Patients with SSD can be rehabilitated with conventional CROS or Bi-CROS systems (contralateral routing of signal), bone anchored hearing systems or with a cochlear implant (CI). The indications and results of the different treatments are presented.

CI as treatment in adult patients with acquired SSD to achieve binaural hearing rehabilitation is now widely accepted. In contrast, children with SSD have been provided with a CI only in rare cases. While the decision for CI surgery in children with acquired SSD is relatively easy due to the good results in adults, CI in children with congenital SSD has been discussed controversially.
Interventions for tinnitus target: (1) the perception of tinnitus and/or (2) reactions to tinnitus. Perception of tinnitus refers to the auditory perceptual characteristics of tinnitus (loudness, pitch, timbre/spectral content). Interventions targeting tinnitus perception generally attempt to reduce the loudness (or intensity) of tinnitus, although no proof currently exists that this is clinically feasible. Reactions to tinnitus refer to the various domains of tinnitus impact, such as emotional distress, concentration difficulties, reduced sense of control, sleep disturbance, and others. This presentation will review behavioral methods of intervention to reduce reactions to tinnitus that are based on research evidence. Topics covered will include (1) how to determine if a patient requires tinnitus-specific intervention; (2) systematic reviews of tinnitus management; (3) overview of American Academy of Otolaryngology – Head & Neck Surgery (AAO-HNSF) Clinical Practice Guideline: Tinnitus; (4) evidence for use of hearing aids for tinnitus management; (5) NCRAR tinnitus research of behavioral methods of tinnitus intervention; (6) principles of tinnitus management based on research evidence; (7) overview of Progressive Tinnitus Management (PTM).
Aural habilitation is vital to the successful development of communication skills and extends beyond the fitting of hearing assistive devices for children with hearing loss. Understanding the interplay between auditory perception skills and cognitive processes in children with hearing loss and designing interventions that would lead to functional changes in auditory comprehension is essential, especially in noisy environments. It is critical to design interventions that minimize the negative effects of hearing loss on children. This talk will focus on a series of experiments that have addressed these issues in children with and without hearing loss. In addition, I will provide pearls of wisdom that have guided my career from graduate school to academia. I will show that mentorship and collaboration are essential components for a career in science.

Examples of Translational Research from the Human Sensory Physiology Laboratory (HSPL) at BTNHRH

Michael P. Gorga, PhD
Boys Town National Research Hospital, Omaha, NE

Translational research has always had a home at the Annual Meeting of the American Auditory Society (AAS). The AAS meeting has provided a forum for presenting work from the Human Sensory Physiology Laboratory (HSPL) at BTNHRH. The HSPL research program was translational in nature before it became “fashionable”. The work summarized in this presentation was made possible by collaborations with many basic and clinical scientists, postdoctoral fellows, and students. Instead of focusing on a single area of research, this presentation will provide an overview of several translational research efforts in the HSPL, dating back to the mid 1980’s. The first part of the presentation will focus on developmental changes in click-evoked auditory brainstem responses (ABR). This work represents one of the first collaborations with Dr. Stephen T. Neely. While initial efforts provided a description of developmental changes in ABR latencies, modeling performed by Dr. Neely led to a more interesting and provocative interpretation that motivated future collaborations. The next part of this presentation will describe the accuracy with which the pure-tone audiogram is predicted from ABR measurements. Predictions are not perfect and aspects of the approach followed at BTNHRH may be controversial, but it is databased. Otoacoustic emissions (OAE) in relation to hearing loss will be described in the next segment of the presentation. This work was initiated in the HSPL by Dr. Beth Prieve when she was a postdoctoral fellow at BTNHRH. The accuracy of OAE measurements and their dependence on frequency and level was evaluated using clinical decision theory, which, at the time, was a new application of this analysis technique. The BTNHR approach for interpreting clinical distortion product otoacoustic emissions (DPOAE) will be covered next. This approach acknowledges that the test, like other audiological tests, performs well but not without error. Shifting away from measurements that have immediate clinical applicability, the presentation will focus next on DPOAE suppression in subjects with normal hearing and subjects with hearing loss. Of particular interest in these data is how the manner in which stimulus level is specified influences the interpretation of results. In support of these observations, similar level-dependent effects on tone-burst evoked ABR latencies from normal and impaired ears will also be described. Time permitting, data from categorical loudness scaling (CLS) in normal and impaired ears will be presented. While there are concerns with the reliability and validity of CLS measurements, they may have clinical value, in that it is possible to efficiently complete these measurements in untrained listeners. Data will be described to suggest that CLS measurements may provide an estimate of loudness loss. Taken together, the topics covered during this presentation provide a sampling of translational research from the HSPL over the past 34 years. [Work supported by the NIH].

Through the Looking Glass: Looking at Aural Habilitation and Academia

Jessica Sullivan, PhD
University of Washington, Seattle, WA

Aural habilitation is vital to the successful development of communication skills and extends beyond the fitting of hearing assistive devices for children with hearing loss. Understanding the interplay between auditory perception skills and cognitive processes in children with hearing loss and designing interventions that would lead to functional changes in auditory comprehension is essential, especially in noisy environments. It is critical to design interventions that minimize the negative effects of hearing loss on children. This talk will focus on a series of experiments that have addressed these issues in children with and without hearing loss. In addition, I will provide pearls of wisdom that have guided my career from graduate school to academia. I will show that mentorship and collaboration are essential components for a career in science.
Dr. Linthicum has devoted his career to the study of temporal bone histopathology. His early mentorship was with 2 giants of temporal bone histopathology-Dr. Stacy Guild of Johns Hopkins University and Prof. Lucius Ruedi of Zurich Switzerland. In 1946 he joined Dr.’s Howard House, William House, and James Sheehy in the formation of the Otological Medical Group in Los Angeles, which later became the House Ear Clinic, and he also became a member of the LA Foundation of Otology, which would later become known as the House Research Institute in 1946. Other than a brief interruption by service in the US Army Med. Corps as captain 1946-1948, Dr. Linthicum has practiced in Los Angeles ever since, where he has garnered an impeccable international reputation as a foremost authority on temporal bone histopathology. Thanks to a generous bequest by a grateful donor, the Eccles temporal bone laboratory was subsequently established where Dr. Linthicum has made his most important contributions to the auditory neurosciences.

Dr. Linthicum was joined by Dr. George Kelemen, recently retired from the Massachusetts Eye and Ear Infirmary of Harvard Medical School, to spend full time in the laboratory. In 1986, after Dr. Kelemen’s death, Dr. Linthicum gave up his practice to devote full time to the laboratory.

Since 1946, the House Ear Institute has led the way in defining the causes of hearing and balance disorders. Dr. Linthicum’s contributions, in particular, have helped clinicians bridge the gap between clinical and histopathologic findings, and have both directly and indirectly paved the way towards improved treatment of hearing loss and balance disorders. Dr. Linthicum prides himself on the fact that he has studied each and every one of the 1,698 bones that have been processed at the Institute. From this data he has authored or co-authored 184 peer reviewed papers and one book.

Since 2014, the House Research Institute has affiliated their laboratory with UCLA where he is now Professor in Residence and continues to be actively involved in temporal bone research.
ALL POSTER ABSTRACTS ARE AVAILABLE ON THE AAS WEBSITE: WWW.AMAUDITORYSOC.ORG

TOPIC AREAS, POSTER NUMBERS, AND ABSTRACT CODES:

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AMPLIFICATION

Poster # 1 - (AMP01) Mentored Student Research Poster Award
Reverberation and Open-fit Hearing-aid Effects on Sound-localization Cues
Anna C. Diedesch, AuD; G. Christopher Stecker, PhD, Vanderbilt University, Nashville, TN

Poster # 2 - (AMP02)
Validation of a Hearing Aid Program Designed for Music Listening
Eric McCabe, AuD; Amanda Wolfe, AuD; Alyson Gruhlke, AuD; Elizabeth Galster, AuD, Starkey Hearing Technologies, Eden Prairie, MN

Poster # 3 - (AMP03)
Home Trial Evaluations of the Tonal AdaptivePhonakDigital Fitting Formula
Solveig Christina Voss, BS; Jinyu Qian, PhD, Phonak China, Shanghai Shuo Wang, PhD; Ruijuan Dong, Otolaryngology - Head & Neck Surgery, Beijing Tongren Hospital, Beijing Institute Of Otolaryngology, Capital Medical University, Beijing; Volker Kuehnel, PhD, Sonova AG, Staefa, Switzerland, Staefa

Poster # 4 - (AMP04)
Influence of Signal-Processing Strategy on Speech Recognition in Noise with Temporal Dips
Daniel Rasetshwane, PhD; David Raybine; Judy Kopun, MA; Michael Garga, PhD; Stephen Neely, Boys Town National Research Hospital, Omaha, NE

Poster # 5 - (AMP05)
Speech Intelligibility Differences Between Binaural and Monaural Telephone Listening Conditions
Amanda Wolfe, AuD; Alyson Gruhlke, AuD; Eric Mccabe, AuD; Elizabeth Galster, AuD, Starkey Hearing Technologies, Eden Prairie, MN

Poster # 6 - (AMP06)
Efficacy of PSAP in Patients with Mild Hearing Loss
Jinjoul Kim, PhD; Heesung Park, MS; Ji Eun Choi, MD; Sung Hwa Hong, MD; Il Joon Moon, MD, Samsung Medical Center, Seoul, Korea

Poster # 7 - (AMP07)
Esteem® Middle-ear Implant Users’ Perception of Own-Voice Relative Loudness
Liz Anderson, PhD, Envoy Medical Corp., St. Paul, MN
Dragana Barac-cikoja, PhD, Gallaudet University, Washington, DC
Peggy Nelson, PhD, University of Minnesota, Minneapolis, MN

Poster # 8 - (AMP08) T35 Research Trainee Poster
Individualizing Microphone Technology in School-Aged Children
Arun Joshi, BS, The University Of North Texas Department Of Speech And Hearing Sciences, Denton, TX
Erin Picou, PhD; Gina Angley, AuD; Todd Ricketts, PhD, Vanderbilt University Medical Center Department Of Hearing And Speech Sciences, Nashville, TN

Poster # 9 - (AMP09) T35 Research Trainee Poster
Pre-Cochlear-Implant Amplification Profiles for Pediatric Recipients
Alissa L. Nickerson, BS, University of Illinois, Champaign, IL
Rosalie M. Uchanski, PhD; Lisa S. Davidson, PhD, Washington University School of Medicine, St. Louis, MO

Cochlear Implants

Poster # 10 - (CI01) Mentored Student Research Poster Award
Vocoded Speech Recognition of Chinese and English AzBio Sentences
Alexa Patton, BS; Li Xu, Ohio University, Athens, OH
Xin Xi, Pia General Hospital, Haidian, Beijing

Poster # 11 - (CI02) Mentored Student Research Poster Award
Fast Psychophysical Tuning Curves as a Measure of Electrode Position
Lindsay DeVries, AuD; Julie Bierer, PhD, University Of Washington, Seattle, WA

Poster # 12 - (CI03) T35 Research Trainee Poster
Effects of Interphase Gap and Polarity in Cochlear Implants
Erin Glickman, BA; Michelle Hughes, PhD; Jenny Goehring, AuD; Margaret Miller, AuD, Boys Town National Research Hospital, Omaha, NE

Poster # 13 - (CI04) T35 Research Trainee Poster
Auditory Cortical Activation with Image-Guided Cochlear Implant Programming: fNIRS
Erin R. Nelson, BFA, Washington University In St. Louis School Of Medicine, St. Louis, MO
Sterling W. Sheffield, AuD, Walter Reed National Military Medical Center; Vanderbilt University Cochlear Implant Research Lab, Bethesda, MD; Iliza M. Butera, BA, Vanderbilt University Brain Institute, Cochlear Implant Research Lab, Nashville, TN; Rene H. Gifford, PhD, Department of Hearing and Speech Sciences, Vanderbilt University; Vanderbilt University Cochlear Implant Research Lab, Nashville, TN

Poster # 14 - (CI05) Mentored Student Research Poster Award
Stimulus Expectancy and Response Entropy in Older Cochlear Implant Recipients
Nicole Amichetti, MS; Eriko Atagi, PhD; Arthur Wingfield, PhD, Brandeis University, Waltham, MA ; Ying-yeo Kong, AuD, NorthEastern University, Boston, MA

Poster # 15 - (CI06)
Neural Correlates of Age-Related Perceptual Deficits in Cochlear-Implant Users
Alessandro Presacco, MS; Matthew J. Goupell, PhD; Casey Gaskins; Maureen Shader, AuD; Samira Anderson, PhD, University Of Maryland, College Park, MD
A Signal Coding Strategy Comparison across the Age Spectrum
Meredith Anderson, AuD; Margaret Dillon, AuD, University Of North Carolina At Chapel Hill, Chapel Hill, NC; English King, AuD; Ellen Deres, AuD, UNC Healthcare, Chapel Hill, NC

ANATOMY AND PHYSIOLOGY

Poster # 17 - (CI08)
Older Listeners’ Processing of Envelope Modulations in Cochlear-Implant Simulated Speech
Maureen J. Shade, AuD; Sandra Gordon-Salant, PhD; Matthew J. Goupell, PhD, University Of Maryland, College Park, Maryland, MD

Poster # 18 - (ANAT01) T35 Research Trainee Poster
Effects of Noise on Glucose Transport in the Cochlear-Lateral Wall
Alyssa Everett, BA, University Of Arizona, Bel Air, MD
Kevin Ohrlemiller, PhD, Washington University, Saint Louis, MO

Poster # 19 - (ANAT02)
Signaling Mechanisms that Regulate Resistance to Noise Induced Hearing Loss
O’neil Guthrie, PhD, Flagstaff, AZ

Poster # 20 - (ANAT03) T35 Research Trainee Poster
Silver Decreases P. aeruginosa Adherence in an In Vitro Model
Rachel King, BA, University Of Maryland, College Park, Department Of Hearing And Speech Sciences, Baltimore, MD; Wee-tin Kao, MD; Patricia Gagnon, MD; Richard Chole, MD, Washington University in St. Louis School Of Medicine, Department Of Otolaryngology, St. Louis, MO; Joseph Vogel, PhD, Washington University in St. Louis School of Medicine, Department of Molecular Microbiology, St. Louis, MO

Poster # 21 - (ANAT04) T35 Research Trainee Poster
Neuronal Correlates of the Detection of Modulated Tone in Modulated Noise
Samantha Hauser, BA; Ramnarayan Ramachandran, Vanderbilt University, Nashville, TN

OTOACOUSTIC EMISSIONS

Poster # 22 - (OAE01) Mentored Student Research Poster Award
Comparison of DPOAE and SFOAE Suppression in Humans
Emily Bosen, BS; Daniel Rasetshwane, PhD; Judy Kopun, MA; Stephen Neely, PhD, Boys Town National Research Hospital, Omaha, NE

Poster # 23 - (OAE02) T35 Research Trainee Poster
Multi-tone Suppression of Distortion-product Otoacoustic Emissions in Humans
Nicole Sieck, BS, The University Of Texas At Austin, Austin, TX
Daniel Rasetshwane, PhD; Judy Kopun, MA; Walt Jesteadt, PhD; Michael Gorga, PhD; Stephen Neely, PhD, Boys Town National Research Hospital, Omaha, NE

Poster # 24 - (OAE03) Mentored Student Research Poster Award
Cochlear Mechanisms and Otoacoustic Emission Test Performance
Nikki Go, AuD; Tiffany Johnson, PhD, University Of Kansas Medical Center, Kansas City, KS; Greta Stamper, PhD, Mayo Hearing Aid Clinic, Jacksonville, FL

Poster # 25 - (OAE04) Mentored Student Research Poster Award
Otoacoustic Emissions in Infants: Normal, Sensorineural, and Conductive Hearing Loss
Chelsea Blankenship, AuD; Lisa Hunter, PhD, Cincinnati Childrens Hospital Medical Center, Cincinnati, OH; Douglas Keefe, PhD; Denis Fitzpatrick, PhD, Boys Town National Research Hospital, Omaha, NE; Patrick Feeney, PhD, VA Portland Health Care System, National Center for Rehabilitative Auditory Research, Portland, OR

Poster # 26 - (OAE05)
Improvements in Identifying Hearing Loss Using Transient Evoked Otoacoustic Emissions
Hammam AlMakadm, AuD; Beth Prieve, PhD, Syracuse University, Syracuse, NY

Poster # 27 - (OAE06)
Distortion-Product Otoacoustic Emissions for Monitoring Ototoxicity in Cystic Fibrosis Patients
Daniel Puttermann, AuD; Patrick Feeney, PhD; Garnett McMillan, PhD, VA Portland Health Care System, Portland, OR; Angela Garinis, PhD, Oregon Health & Science University, Portland, OR; Douglas Keefe, PhD; Denis Fitzpatrick, PhD, Boys Town National Research Hospital, Omaha, NE; Lisa Hunter, PhD, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH

ELECTROPHYSIOLOGY

Poster # 28 - (EP01) T35 Research Trainee Poster
Stimulus Parameter and Age Effects on the ABR in Adults
Jordan Racca, BA, The University Of Texas At Dallas, Ft Worth, TX
Linda Hood, PhD, Vanderbilt University, Nashville, TN

Poster # 29 - (EP02) T35 Research Trainee Poster
Age and Hearing Impairment Effects on FFR to Dynamic Stimuli
Jane Grabowski, MA, Towson University, Baltimore, MD
Curts Billings, PhD; Michelle Molis, PhD; Sam Gordon; Melissa Frederick, AuD; Sean Kampel, AuD, National Center For Rehabilitative Auditory Research, Portland, OR

Poster # 30 - (EP03) Mentored Student Research Poster Award
Onset-Offset N1-P2 Responses in Individuals with High-Frequency Sensorineural Hearing Loss
Jennifer Gonzalez, PhD, University Of Connecticut, Scottsdale, AZ
Frank Musiek, PhD, University Of Arizona, Tucson, AZ
Poster # 31 - (EP04) Mentored Student Research Poster Award
Perceptual and Neurophysiological Effects of Age-Related Hearing Loss and Amplification
Kate McClannahan, BA; Kristina Backer, PhD; Kelly Tremblay, PhD, University Of Washington, Seattle, WA

Poster # 32 - (EP05) Mentored Student Research Poster Award
Auditory Event-Related Potentials to Speech in Informational and Energetic Masking
Katharine Fitzharris; Ross Roeser, PhD, University Of Texas At Dallas, Dallas, TX

Poster # 33 - (EP06) Mentored Student Research Poster Award
Effects of Amplification on Phase Locking to a Speech Syllable
Calli Fodor, BS; Samira Anderson, PhD, University Of Maryland, College Park, MD

Poster # 34 - (EP07) Mentored Student Research Poster Award
Informational Masking Effects on Neural Encoding of an Acoustic Change
Christopher Niemczak, BS; Cathy Vander Werff, PhD, Syracuse University, Syracuse, NY

Poster # 35 - (EP08) Mentored Student Research Poster Award
Neural Synchrony for Novelty Detection Predicts Speech Perception in Noise
Tess Koerner, AuD; Yang Zhang, PhD; Peggy Nelson, PhD, University Of Minnesota, Minneapolis, MN

Poster # 36 - (EP09) Mentored Student Research Poster Award
Auditory-Evoked Potentials and Speech-in-Noise Perception in Presbycusis
So Eun Park, MS; Cynthia Fowler, PhD, University Wisconsin-Madison, Department Of Communication Sciences And Disorders, Madison, WI

AUDITORY PROCESSING

Poster # 37 - (AP01)
Testing Variables that Affect APD Test Outcomes
Maria Pomponio, AuD, Temple University School Of Medicine, Philadelphia, PA; Stephanie Nagle, PhD; Jennifer Smart, PhD, Towson University, Towson, MD; Shannon Palmer, PhD, Central Michigan University

Poster # 38 - (AP02) Mentored Student Research Poster Award
The Audiolinguistic Evaluation of the Multiple Sclerosis Patient
Diane Cheek, BA; Renata Filippini, PhD; Frank Musiek, PhD, University Of Arizona - Speech, Language, And Hearing Sciences, Tucson, AZ

Poster # 39 - (AP03) T35 Research Trainee Poster
Effects of Parkinson’s Disease on Auditory Processing
Amy Riggins, BA, University Of Wisconsin - Madison, Madison, WI; Jay Vachhani, AuD; Sarah Theodoroff, PhD; Rachel Ellinger; Frederick Gallun, PhD; Robert Folmer, PhD, National Center For Rehabilitative Auditory Research, Portland, OR

Poster # 40 - (AP04)
MLD with Digits (MLDD): Development and Normative Data
Kathryn Schwartz, PhD, Old Dominion University, Norfolk, VA; Dania Rishiq, PhD; Greta Stamper, PhD; David Zapala, PhD, Mayo Clinic Florida, Jacksonville, FL; Samantha Kleindienst, PhD, Mayo Clinic Arizona, Scottsdale, AZ

Poster # 41 - (AP05)
Dichotic Digit Test Performance Across the Ages
Mary E. Fischer, PhD; Karen J. Cruickshanks, PhD; David M. Nondahl, MS; Barbara E. Klein, MD; Ronald Klein, MD; Ted S. Tweed, MS, University Of Wisconsin-Madison, Madison, WI

AUDIOLOGY / OTOLARYNGOLOGY

Poster # 42 - (AO01) T35 Research Trainee Poster
Diabetic Retinopathy and Auditory Dysfunction in a Veteran Cohort
Megan Eitel, BS, Montclair State University, Wayne, NJ; Don Austin, MD; Dawn Konrad-Martin, PhD; Kelly Reavis, MS; Jane Gordon, MS; Daniel McDermott, MS; Marilyn Dille, PhD, National Center For Rehabilitative Auditory Research (NCRAR), Portland, OR; Weon Jun, Portland VA Medical Center, Portland, OR

Poster # 43 - (AO02)
Automated Forced-Choice Word-Recognition Tests
Robert Margolis, PhD; George Saly, Audiology Incorporated, Arden Hills, MN; Heather Gilbert, University Of Minnesota Dept Of Otolaryngology, Minneapolis, MN; Brandon Madsen, AuD, National Center for Rehabilitative Auditory Research, Portland, OR; Richard Wilson, PhD, Arizona State University, Tempe, AZ

Poster # 44 - (AO03)
Prognostic Value of the Threshold Equalizing Noise Test in Patients with Sudden Sensorineural Hearing Loss
Jungmin Ahn, MD; Ji Eun Choi; Il Joon Moon, PhD; Won-ho Chung, PhD; Yang-Sung Cho, PhD; Sung Hwa Hong, PhD, Samsung Medical Center, Department of Otorhinolaryngology - Head and Neck Surgery, Samsung Medical Center, Sungkyunkwan University School of Medicine, 50 Irwon-dong, Gangnam-gu

Poster # 45 - (AO04)
Use of Sentence Cues Based on Confidence During Word-Recognition Tests
Heekyung J. Han, MS; Robert S. Schlauch, PhD, Department Of Speech-language-hearing Sciences, University Of Minnesota, Twin Cities, Minneapolis, MN

Poster # 46 - (AO05)
Auditory Phenotype of NGLY1-CDDG
Carmen Brewer, PhD; Kelly King, PhD; Christopher Zalewski, PhD, NIDCD/NIH, Bethesda, MD; Carlos Ferreira, MD; Donna Krasnewich, MD; William Gahl, MD; Lam Christina, MD; Lynne Wolfe, NHGRI/NIH, Bethesda, MD
SPEECH PERCEPTION

Poster # 47 - (SPAD01) Mentored Student Research Poster Award
Band-Importance Functions of Clear Speech and Conversational Speech
Pitchulee Uayporn, BS; Catherine Palmer, PhD, University Of Pittsburgh, Pittsburgh, PA

Poster # 48 - (SPAD02) Mentored Student Research Poster Award
Spatial Release from Masking: Effects of Simulated Unilateral Hearing Loss
Nicole Corbin, AuD; Emily Buss, PhD, The University Of North Carolina At Chapel Hill, Chapel Hill, NC ; Lori Leibold, PhD, 3Center for Hearing Research, Boys Town National Research Hospital, Omaha, NE

Poster # 49 - (SPAD03) Mentored Student Research Poster Award
Recognition of Interrupted Words by Listeners with Sensorineural Hearing Loss
Kadie Sharrett, BS, East Tennessee State University, Bristol, TN

Poster # 50 - (SPAD04) Mentored Student Research Poster Award
Effects of Audio-Visual Distractions in Older and Younger Listeners
Mary Barrett, BA, Beltsville, MD

Poster # 51 - (SPAD05) Mentored Student Research Poster Award
Adaptation to Foreign-Accented Speech: Influence of Aging and Hearing Loss
Rebecca Bieber, BS; Sandra Gordon-Salant, PhD, University Of Maryland College Park, College Park, MD

Poster # 52 - (SPAD06) T35 Research Trainee Poster
The Effects of Priming on False Hearing
Angela Yung, BS; Mitchell Sommers, PhD, Washington University In St. Louis, St. Louis, MO

Poster # 53 - (SPAD07) Mentored Student Research Poster Award
Comparing Behavioral Measures of Listening Effort Across the Lifespan
Kristi Ward, BS; Jing Shen, PhD; Pamela Souza, PhD; Tina Grieco-Calub, PhD, Northwestern University, Evanston, IL

Poster # 54 - (SPAD08) T35 Research Trainee Poster
Sound Quality Impacts the Speed and Effort of Sentence Perception
Matthew Winn, PhD, University Of Washington, Seattle, WA

Poster # 55 - (SPAD09) T35 Research Trainee Poster
Vocabulary Facilitates Speech Perception in Children with Hearing Aids
Kelsey Klein, BA; Elizabeth Walker, PhD, University Of Iowa, Iowa City, IA

Poster # 56 - (SPAD10) T35 Research Trainee Poster
Prosodic Contrast for Target Words in Child-Directed Speech in Noise
Julia Garrick, BS, University Of Cincinnati Department Of Communication Sciences And Disorders, Cincinnati, OH

Poster # 57 - (SPAD11) T35 Research Trainee Poster
Voice Emotion Recognition by Children With Mild to Moderate Hearing Loss
Shauntelle Cannon, BA, University Of North Carolina At Chapel Hill, Carrboro, NC ; Monita Chatterjee, PhD, Boys Town National Research Hospital, Omaha, NE

Poster # 58 - (SPAD12) T35 Research Trainee Poster
Does Sentence Predictability Influence Word Identification in School-Age Children?
David Kessler; Elizabeth Walker, PhD University Of Iowa, Iowa City, IA

PSYCHOACOUSTICS

Poster # 59 - (PSY01) Mentored Student Research Poster Award
Behavioral and Electrophysiological Measures of Partially Filled Gap Detection Performance
Julianne M. Cerutti, PhD, University Of Connecticut, Storrs, CT

Poster # 60 - (PSY02) Mentored Student Research Poster Award
Effect of Amplification on the Contribution of Specific Frequency Bands to Loudness
Katie Thrailkill, BS, University Of Nebraska-lincoln, Lincoln, NE

Poster # 61 - (PSY03) T35 Research Trainee Poster
The Chase: Perception of Animacy in the Hearing Realm
Miriam Glicksberg, BA; Daniel Ashmead, PhD, Vanderbilt University, Nashville, TN

Poster # 62 - (PSY04) T35 Research Trainee Poster
Evaluation of the Hypersound® Audio System in an Anechoic Environment
Shaum Bhagat, PhD, School Of Communication Sciences And Disorders, Memphis, TN ; Brian Taylor, AuD, Senior Director, Clinical Affairs, Turtle Beach Corporation, San Diego, CA
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Poster # 63 - (PSY05)
Amplitude-Modulated Forward Masking in Listeners with Normal and Impaired Hearing
Adam Svec, PhD, Starkey Hearing Technologies, Eden Prairie, MN
Magdalena Wojtczak, PhD; Peggy Nelson, PhD, University Of Minnesota, Minneapolis, MN

Poster # 64 - (PSY06)
Sources of Discrepancy Between Loudness Perception and Model Predictions
Tzu-Ling J Yu, MS; Robert Schlauch, PhD; Heekyung J Han, MS; Edward Carney, PhD, Department Of Speech-language-hearing Sciences, University Of Minnesota, Minneapolis, MN

Poster # 65 - (PSY07)
Contributions of Frequency Bands to the Loudness of Broadband Tonal and Noise Stimuli
Walt Jesteadt, PhD; Katarina Brunette, PhD; Oluwaseye Ogun, MD; Marcin Wroblewski, AuD, Boys Town National Research Hospital, Omaha, NE

TINNITUS

Poster # 66 - (TIN01) Mentored Student Research Poster Award
Developing an Audiologist-Delivered Psychological Intervention for People with Tinnitus
Dean M Thompson; Deborah A Hall, PhD; Derek J Hoare, PhD, National Institute For Health Research Nottingham Hearing Biomedical Research Unit, Nottingham; Dawn-Marie Walker, PhD, University of Southampton, Southampton

Poster # 67 - (TIN02) Mentored Student Research Poster Award
Assessing the Impact of Sound Sensitivity in Tinnitus
Benjamin Greenberg, MA, American School Of Professional Psychology At Argosy University, San Francisco Bay Area, Orinda, CA ; Bong Walsh, PhD; Megan Carlos, PhD, American School Of Professional Psychology At Argosy University, San Francisco Bay Area, Alameda, CA

Poster # 68 - (TIN03)
Economic Analyses of a Tinnitus Management Clinic
Craig Newman, PhD; Sharon Sandridge, PhD, Cleveland Clinic Head & Neck Institute, Cleveland, OH

Poster # 69 - (TIN04)
Systematic Review of Outcomes in Tinnitus Trials: COST Action BM1306
Dean M Thompson; Deborah A Hall, PhD, National Institute For Health Research Nottingham Hearing Biomedical Research Unit, Nottingham, NA

Poster # 70 - (TIN05)
Why is Tinnitus a Problem? A Qualitative Analysis of Problems Reported by Tinnitus Patients
Derek Hoare, PhD; Emily Watts; Kathryn Fackrell; Sandra Smith, University Of Nottingham, Nottingham
Jacqueline Sheldrake, Tinnitus and Hyperacusis Centre, London

Poster # 71 - (TIN06)
Psychometric Properties of the Tinnitus Functional Index (TFI): Assessment in a UK Research Volunteer Population
Derek Hoare, PhD; Kathryn Fackrell; Deborah Hall, University Of Nottingham, Nottingham; Johanna Barry, MRC Institute of Hearing Research, Nottingham

VESTIBULAR

Poster # 72 - (VEST01) T35 Research Trainee Poster
Effects of Initial Head Position and Eye Movement Direction on vHIT Gain in Patients with Unilateral Vestibular Dysfunction
Joel Goebel, MD; Charlotte Dutcher; Belinda Sinks, AuD; Allison Sargent, Washington University School of Medicine, Saint Louis, MO

Poster # 73 - (VEST02)
Perception of Vertigo: Quantitative Measurement with/without Galvanic Vestibular Stimulation
Gaurav Pradhan, PhD; Samantha Kleindienst, PhD; Jamie Bogle, PhD; Michael Cevette, PhD; Jan Stepanek, MD, Mayo Clinic Arizona, Scottsdale, AZ

Poster # 74 - (VEST03)
Hearing Loss and Fear of Falling in Older Adults
Adele Goman, PhD; Jennifer Deal, PhD; Judith Kasper, PhD; Frank Lin, MD, Johns Hopkins University, Baltimore, MD

Poster # 75 - (VEST04)
Clinical Effectiveness of the Epley Omniax for Treatment of BPPV
Dave Harris, PhD; Kathryn Philippe; Melissa Lowe, AuD; Sarah Keenan-Meyer; Anthony Mikulec, MD, Saint Louis University School Of Medicine, St. Louis, MO

Poster # 76 - (VEST05)
Vestibular Consequences of Mild Traumatic Brain Injury and Blast Exposure
Faith Akin, PhD; Owen Murnane, PhD; Courtney Hall, PhD; Jennifer Sears, AuD; Kristal Riska, PhD; Richard Atlee, Mountain Home VA Medical C, Mountain Home, TN

Poster # 77 - (VEST06)
Gait Variations in Relation to Hearing
Ashley M. Deeb, AuD; Kenneth R. Bouchard, PhD, Henry Ford Medical Group, Detroit, MI ; Jacklyn Theis, AuD, Advanced Audiology, Dewitt, MI
HEARING HEALTH

Poster # 78 - (HH01) Mentored Student Research Poster Award Barriers and Facilitators for Seeking Hearing Healthcare: A Four-Country Perspective
Cornetta Mosley, BA; C Baylor, PhD; Kathryn Yorkston, PhD; Kelly Tremblay, PhD, University Of Washington, Seattle, WA
Kathleen Pichora-Fuller, PhD, University of Toronto, Mississauga, Ontario
Catherine Mcmahon, PhD, Macquarie University, North Ryde, New South Wales; Adrian Davis, PhD, Public Health England, London

Poster # 79 - (HH02)
Hearing Loss, Physical Health and Cognition in Rural Alabama
Marcia Hay-McCutcheon, PhD; Adriana Hyams, MA; Brianna Panasiuk, MS; Sarah Ondocsin, MS, The University Of Alabama, Tuscaloosa, AL

Poster # 80 - (HH03)
Demographics of Audiologic Care Provided by Arizona Sonora Borders Project
Page Beukelman, BS; Kylie Jordan; Nicole Denny, BA, University Of Arizona, Tucson, AZ; Pablo Valenzuela, ARSOBO; James Dean, AuD, University of Arizona and Tucson Medical Center, Tucson, AZ

Poster # 81 - (HH04)
Hearing Loss Management in a Rural Community: Barriers and Facilitators
Adriana Sanchez, BS; Nicole Marrone, PhD; Maia Ingram; Jill De Zapien; Daisey Sanchez; Frances Harris, PhD; Sonia Colina, PhD, Speech, Language, And Hearing Sciences, University Of Arizona, Tucson, AZ
Rosie Piper, Mariposa Health Clinic, Nogales, AZ

Poster # 82 - (HH05)
A New Online Questionnaire for Assessing Spatial-hearing Ability
Adriana Goyette, AuD; Christophe Micheyl, PhD; Sridhar Kalluri, PhD; Starkey, Eden Prairie, MN

Poster # 83 - (HH06)
Outcomes on Two Versions of the Hearing Handicap Inventory
Jay Vachhani, AuD; Gabrielle Saunders, PhD; Robert Folmer, PhD; Patrick Feeney, PhD, National Center For Rehabilitative Auditory Research-VA Portland Health Care System, Portland, OR
Robert Margolis, PhD, Audiology Incorporated, Arden Hills, MN
Lawrence Feth, PhD; Christina Roup, PhD, Ohio State University-Department of Speech and Hearing Science, Columbus, Ohio

Poster # 84 - (HH07) Mentored Student Research Poster Award Correlation Between Dietary Quality and Audiological Results in Young Adults
Janelle Kelley, BS, University Of Florida / Mayo Clinic Jacksonville, Ormond Beach, FL; Christopher Spankovich, PhD, University Of Mississippi Medical Center
Meghan Jolley, University of Florida

Poster # 85 - (HH08)
Screening for Otologic Functional Impairments in the Elderly (SOFIE)
Sharon Sandridge, PhD; Craig Newman, PhD, Cleveland Clinic Head & Neck Institute, Cleveland, OH; Barbara Weinstein, PhD, CUNY - GC, New York, NY

Poster # 86 - (HH09)
Development for the Self-assessment of Hearing Screening of the Elderly
Gibbeum Kim, BS; Woojae Han, PhD; Jinsook Kim, PhD; Wondo Na; Gungu Kim, Hallym University, Chuncheon, Gangwondo

HEARING LOSS / REHABILITATION

Poster # 87 - (HLRE01) T35 Research Trainee Poster Cognitive Screening and Hearing Loss
Anna Cosgrove, BS, Montclair State University, Bloomfield, NJ
Ian Odgear; Melissa Frederick, AuD; Gabrielle Saunders, PhD, National Center For Rehabilitative Auditory Research, Portland, OR

Poster # 88 - (HLRE02)
Use of QuickSIN Stimuli to Obtain Acceptable Noise Levels
Hua Ou, PhD, Illinois State University, Normal, IL

Poster # 89 - (HLRE03)
Is the Device-Oriented Subjective Outcome (DOSO) Independent of Personality?
Kelsey Dumanch, BS; Yu-hsiang Wu, PhD; Elizabeth Stagli, AuD; Ruth Bentler, PhD, University Of Iowa, Iowa City, IA; Christi Miller, PhD; Christopher Bishop, PhD; Kelly Tremblay, PhD, University of Washington, Seattle, WA

Poster # 90 - (HLRE04)
Statistical Analysis of Outcomes from the Device-Oriented Subjective Outcome Scale
Ryan Irey, MA; Elizabeth Galster, AuD; Alyson Gruhlke, AuD; Amanda Wolfe, AuD; Jason Galster, PhD, Starkey Hearing Technologies, Eden Prairie, MN

ANATOMY AND PHYSIOLOGY

Poster # 91 - (ANAT05)
Investigating the Role of Temporal Bone Anatomy on Caloric Stimulation
David Carpenter, BA; Erin Piker, PhD; David Kaylie, MD; Dennis Frank-ito, Duke University Medical Center, Durham, NC

Poster # 92 - (ANAT06)
Voice Analysis Following Vagus-nerve Stimulation with Tones for Treating Tinnitus
Helen Kochilas, BA; Amy Arnold, AuD; Anthony Cacace, PhD, Department Of Communication Sciences & Disorders, Wayne State University, Detroit, MI; Michael Seidman, MD, Henry Ford Health System, West Bloomfield, Michigan; Brent Tarver, MicroTransponder, Inc., Austin, Texas
Poster # 93 - (ANAT07)

Cochlear Nerve Deficiency and Brain Abnormalities in Pediatric Patients
Thierry Morlet, PhD; Markian Pazuniak, MD; Robert O’Reilly, MD; Kandula Vinay, MD; Arabinda Choudhary, MD; Al Dupont Hospital For Children, Wilmington, DE

Poster # 94 - (WI01)

Medial Olivocochlear Reflex and Changes in Middle Ear Reflectance
Weston Adkins, BS; Laura Mueldener; Shawn Goodman, PhD, The University Of Iowa, Iowa City, IA

Poster # 95 - (WI02)

Middle Ear Muscle Contraction Assessment for Impulsive Sounds
Gregory Flamme, PhD; Stephen Tasko, PhD; Kristy Deiters, AuD, Western Michigan University, Kalamazoo, MI; William Ahroon, PhD, US Army Aeromedical Research Laboratory, Ft. Rucker, AL

Poster # 96 - (WI03)

Contralateral Stimulus Comparison of the Acoustic Reflex via Reflectance Measures
Jinna Borgstrom, MA; Souraya Lorenz; David Velenvovsky, PhD, University Of Arizona, Tucson, AZ

Poster # 97 - (WI04)

The Effect of the Acoustic Reflex on Middle Ear Transmittance
Haley Lanoue; Sarah Mackenzie; Brenden Bagnoli; Clemente Morales; Liza Clark; David Velenvovsky, PhD, University Of Arizona, Tucson, AZ

Poster # 98 - (WI05)

Ipsilateral Measurements of the Acoustic Reflex Using Wideband Power Reflectance
Sarah MacKenzie; Haley Lanoue; Clemente Morales; Brenden Bagnoli; David Velenvovsky, PhD, University Of Arizona, Tucson, AZ

Poster # 99 - (WI06)

Age Effects in the Adult Middle Ear: Wideband Acoustic Impittance
Chris Sanford, PhD; Gabriel Bargen, PhD; Jacob Diller; Heather Smith; Alyssa Hartman; Jeff Brockett, Idaho State University, Pocatello, ID

ELECTROPHYSIOLOGY

Poster # 100 - (EP10)

Characterizing ABRs in Preterm Infants: The BabyEars Project
Linda Hood, PhD; Mary Edwards, AuD, Vanderbilt University, Nashville, TN; Beth Priewe, PhD, Syracuse University, Syracuse, NY

Poster # 101 - (EP11)

Auditory Steady-State Long-Latency Response (ASSLLR):
Back to Fundamental Stimulus Parameters
Abreena Tlumak, PhD, VA Pittsburgh Healthcare System, Pittsburgh, PA; John Durrant, PhD, University Of Pittsburgh, Pittsburgh, PA
Rafael Delgado, PhD, Intelligent Hearing Systems, Miami, FL

Poster # 102 - (EP12)

Electrocochleography Obtained at High Stimulus Rates in Patients with Meniere Disease
Krzysztof Morawski, MD; Kazimierz Niemczyk, MD; Katarzyna Pierchala, MD; Magdalena Kuzminska, MD; Aleksandra Wezky, MD, Department Of Otolaryngology, Medical University Of Warsaw, Warsaw, Warsaw, Poland
Rafael Delgado, PhD, Intelligent Hearing Systems, Miami, FL

Poster # 103 - (EP13)

Frequency Following Response: Normative Data
Saradha Ananthakrishnan, PhD, Towson University, Towson, MD

Poster # 104 - (EP14)

Assessment of Consistency of Brainstem Binaural Hearing Component: Preliminary Results
Parvaneh Abbasaipour, MS, Health And Rehabilitation Sciences Graduate Program, Western University, London, ON
Susan Stanton, PhD; Ewan Macpherson, PhD, Health And Rehabilitation Sciences Graduate Program, 2National Centre For Audiology, Western University, London, ON

Poster # 105 - (EP15) New Investigator Poster Award

Neural Correlates of Age-related Changes in Auditory Temporal Processing
Samira Anderson, PhD; Sandra Gordon-Salant, PhD; Casey Gaskins; Matthew Goupell, PhD, University Of Maryland, College Park, MD

Poster # 106 - (EP16)

P300 in Participants with Sensorineural Hearing Loss: Relation to Working Memory and Speech Perception in Noise
Naveen Nagaraj, PhD; Samuel Atcherson, PhD; Jennifer Franklin, AuD, UAMS/UALR, Little Rock, AR

Poster # 107 - (EP17)

Attentional Modulation of Neural Responses in Normal-hearing and Hearing-impaired Listeners
Ala Somarowthu, MS; Ying-yeo Kong, PhD, Northeastern University, Boston, MA; Nai Ding, PhD, Zhejiang University, Hangzhou

Poster # 108 - (EP18)

Reduction of Listening Effort with Binaural Algorithms in Hearing Aids: A EEG Study
Axel Winneke, PhD; Jens Appell, PhD, Fraunhofer IDMT, Oldenburg
Maarten De Vos, PhD, Oxford University, Oxford; Kirsten Wagener, PhD, Hoerzentrum Oldenburg; Peter Derleth, PhD; Matthias Latzel, PhD, Phonak AG, Staefa; Frank Wallhoff, PhD, Jade Hochschule, Oldenburg
Poster # 109 - (EP19)
Relations Among ABR/MLR Response Measures and Categorical Loudness Judgments
Peggy Korczak, PhD, Towson University, Towson, MD; Craig Formby, PhD, University Of Alabama, Tuscaloosa, AL; Monica Hawley, PhD, University of Maryland, Baltimore, MD

Poster # 110 - (EP20)
Electrophysiological Masking Level Differences with Speech Tokens
Cynthia Fowler, PhD; Emily Wilson, MS, University Of Wisconsin, Madison, Madison, WI

Poster # 111 - (EP21)
Preadolescent Musical Training Influences Spatial Listening and Temporal Processing
Brett Schneiderman, BS; Erin Dula; Saravanan Elangovan, PhD; Jacek Smurzynski, PhD, East Tennessee State University, Johnson City, TN

Poster # 112 - (EP22)
Auditory Function in Patients with Charcot-Marie-Tooth Disease
Il Joon Moon, MD; Yoon Sang Ji, PhD; Heesung Park, AuD; Sung Hwa Hong, MD, Department Of Otorhinolaryngology-head And Neck Surgery, Sungkyunkwan University School Of Medicine, Seoul, Korea
Kyung Myun Lee, PhD, Smart Humanity Convergence Center, Graduate School Of Convergence Science And Technology, Suwon, Korea
Byung-Ok Choi, MD, Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

PSYCHOACOUSTICS
Poster # 113 - (PSY08)
Statistical Confidence in the Comparison between Estimated Decision Weights
Samuel Hess, MS; Huanping Dai, PhD, University Of Arizona Dept Of Speech, Language, And Hearing Sciences; Dept. Of Electrical Engineering, Tucson, AZ

Poster # 114 - (PSY09)
How Does Musical Training Impact Auditory Streaming?
Aurora Weaver, PhD; Jessica Burford, Auburn University, Auburn, AL
Jeffrey Digiovanni, PhD, Ohio University, Athens, OH

Poster # 115 - (PSY10)
On Estimating Internal Noise: Comparison of Three Methods
Huanping Dai, PhD, Auditory Perception And Amplification Lab Dept Of Speech, Language, And Hearing Sciences, Tucson, AZ
Samuel Hess, MS, Dept Of Speech, Language, And Hearing Sciences; Dept Of Electrical Engineering, Tucson, AZ

Poster # 116 - (PSY11)
Evaluation of Cochlear Implant Candidates using Spectrotemporal Modulations Test
Ji Eun Choi, MD; Il Joon Moon, PhD; Jung-min Ahn, MD; Jinryoul Kim, PhD; Heesung Park, PhD; Sung Hwa Hong, PhD, Samsung Medical Center, Seoul

Poster # 117 - (PSY12)
Build-up Effect of Auditory Stream Segregation using Amplitude-modulated Narrowband Noise
Harley Wheeler; Yingjiu Nie, PhD; Alexandria Matz, James Madison University, Harrisonburg, VA

Poster # 118 - (PSY13)
Relationships of Cognitive Abilities to Spectro-Temporal Ripple Detection
Benjamin Kirby, PhD; Meredith Spratford, AuD; Judy Kopun, MA; Ryan McCreery, PhD, Boys Town National Research Hospital, Omaha, NE
Kelsey Klein, University Of Iowa, Iowa City, IA

Poster # 119 - (PSY14)
Effects of Self-generated Noise on Children’s Pure-tone Detection Thresholds
Emily Buss, PhD; John Grose, PhD; Joseph Hall, PhD, UNC School Of Medicine, Chapel Hill, NC; Heather Porter, PhD, University Of Southern California, CA
Lori Leibold, PhD, Boys Town National Research Hospital, Omaha, NE

Poster # 120 - (PSY15)
Binaural Pitch Fusion in Normal-Hearing and Hearing Impaired Children
Curtis Hartling, AuD; Jennifer Fowler, AuD; Gemaine Stark; Anna-Marie Wood; Ashley Sobchuk; Yonghee Oh, PhD; Daniel Talian; Lina Reiss, PhD, Oregon Health & Science University, Portland, OR

OTOACOUSTIC EMISSIONS
Poster # 121 - (OAE07)
A Critical Study of Perception of the Double Vowel
Anusha Yellamsetty, PhD; Shaum Bhagat, PhD, The University Of Memphis, Memphis, TN

Poster # 122 - (OAE08)
Perceptual Correlates of Weakened Cochlear Compression during Aging
Amanda Ortmann, PhD; Carolina Abdala, PhD; Yeini Guardia, University Of Southern California, Los Angeles, CA

Poster # 123 - (OAE09)
Click-evoked Otoacoustic Emissions Measured using Three Non-linear Extraction Strategies
James Lewis, PhD; Kristen Waggoner; Mary Easterday, AuD, University Of Tennessee Health Science Center, Knoxville, TN

Poster # 124 - (OAE10)
Contralateral Suppression of Otoacoustic Emissions in Ears with Spontaneous Components
Wiktor Jedrzejczak, PhD; Krzysztof Kochanek, PhD; Henryk Skarzynski, PhD, World Hearing Center, Institute Of Physiology And Pathology Of Hearing, Kajetany
Poster # 125 - (OAE11)
Contralateral Suppression of TEOAEs and ASSRs
Measured Concurrently
Ian Mertes, PhD; Barden Stagner; Erin Wilbanks, AuD; Marjorie Leek, PhD, VA Loma Linda Healthcare System, Loma Linda, CA

Poster # 126 - (OAE12)
2f2-f1 DPOAE Sources in Contradiction to the Two-Source/Two-Mechanism Model?
Jennifer Horn, PhD; Sheila Pratt, PhD; John Durrant, PhD; Catherine Palmer, PhD, University Of Pittsburgh, Agoura Hills, CA; Peter Torre, PhD, San Diego State University, San Diego, CA

HEARING LOSS / HEARING DISABILITY

Poster # 127 - (HLD01)
Comparison of Limitation Volume Levels to Music using Mobile Phones
Gibbeum Kim, BS; Woojae Han, PhD; Jihyeon Lee, Hallym University, Chuncheon, Gangwondo

Poster # 128 - (HLD02)
Sound Exposure of University Music Students and Potential Hearing Risk
Jason Smith, BA; David Velovenovsky, PhD; James Dean, AuD, University Of Arizona, Tucson, AZ

Poster # 129 - (HLD03)
Mild-to-Moderate Hearing Loss and Psychomotor Performance of Professional Drivers
Mariola Sliwinska-Kowalska, MD; Piotr Kotylo, MD; Jadwiga Siedlecka, PhD; Marcin Kosobudzki, MA; Alicja Bortkiewicz, PhD, Nofer Institute Of Occupational Medicine, Lodz

Poster # 130 - (HLD04)
Speech, Spatial, and Qualities of Hearing Scale: SSQ5 or SSQ12?
Elaine Kim, BA; Hua Ou, MD, Illinois State University, Normal, IL

TRAINING / REHABILITATION

Poster # 131 - (TR01)
Effects of Intensive Piano Training on Auditory and Cognitive Processing
Celia Riffel, BA; Jennifer Lister, PhD; Nathaniel Maxfield, PhD, University Of South Florida Department Of Communication Sciences And Disorders, Tampa, FL

Poster # 132 - (TR02)
Can a Computer-Based Auditory Training Program Improve Audiospatial Speech Performance?
Dania Rishiq, PhD, Mayo Clinic, Florida, Jacksonville, FL; Aparna Rao, PhD, Department Of Speech And Hearing Science, Arizona State University, Tempe, AZ; Tess Koerner, AuD, Department of Speech-Language-Hearing Sciences, University of Minnesota, MN
Harvey Abrams, PhD, Starkey Hearing Technologies, Eden Prairie, MN

Poster # 133 - (TR03)
A Manualized Audiology Intervention: Can Intervention Slow Cognitive Decline?
Courtney Matthews, BA; Victoria Williams-Sanchez, PhD; Michelle Arnold, AuD; Theresa Chisolm, PhD, The University Of South Florida Department Of Communication Sciences And Disorders, Tampa, FL
Frank Lin, MD; Nicholas Reed, AuD, Johns Hopkins University Department Of Otolaryngology- Head And Neck Surgery, Baltimore, MD

SPEECH PERCEPTION

Poster # 134 - (SPAD13)
Do Working Memory Abilities Predict the Multimodal Lexical Sentence Test?
Christi Miller, PhD; Erin Stewart; Christopher Bishop, PhD; Kelly Tremblay, PhD, University Of Washington, Seattle, WA
Yu-hsiang Wu, MD; Ruth Bentler, PhD, University Of Iowa, Iowa City, IA

Poster # 135 - (SPAD14)
The Effects of Language on the Graphical Speech Intelligibility Index
In-Ki Jin, PhD; Kyung Ju Lee, Hallym University, Chuncheon
James Kates, MS; Kathryn Arehart, PhD, University Of Colorado, Boulder, Boulder, CO

Poster # 136 - (SPAD15)
Adaptive Methods for Comparing Listener Preferences across Masker Conditions
Doug Brungart, PhD; Lynn Bielski, PhD, Walter Reed National Military Medical Center, Bethesda, MD; Eric Thompson, PhD; Nandini Iyer, PhD, Wright Patterson Air Force Base Research Lab, WPAFB, OH; Pat Zurek, PhD; Jay Desloge, PhD, Sensimetrics Corporation, Malden, MA

Poster # 137 - (SPAD16)
Aging and the Recognition of Interrupted Speech
John Grose, PhD; Emily Buss, PhD; Joseph Hall III, PhD, University Of North Carolina At Chapel Hill, Chapel Hill, NC; Heather Porter, PhD, University of Southern California, Los Angeles, CA
Effects of Dynamic Pitch on Older Listeners' Speech Recognition in Noise
Jing Shen, PhD; Pamela Souza, PhD, Northwestern University, Evanston, IL

Teacher & Student Perceptions of Student Classroom Listening Ability
Meredith Spratford, AuD; Ryan McCreery, PhD, BTNRH, Omaha, NE
Elizabeth Walker, PhD, University Of Iowa, Iowa City, IA

Effects of Signal Quality on Speech Recognition in Children
Dawna Lewis, PhD; Andrew Dergan; Tessa McDermott; Timothy Vallier, MA, Boys Town National Research Hospital, Omaha, NE

Impact of Room Acoustics and Visual Cues on Children's Ability to Localize Talkers
Dawna Lewis, PhD; Tessa McDermott; Abigail Stewart; Timothy Vallier, MA; Matthew Blevins, MS; Andrew Dergan, Boys Town National Research Hospital, Omaha, NE

Impact of Visual Information on Children's Speech Recognition in Noise and Reverberation
Dawna Lewis, PhD; Abigail Stewart; Tessa McDermott; Timothy Vallier; Matthew Blevins, MS; Andrew Dergan, Boys Town National Research Hospital, Omaha, NE

Using CASPA to Evaluate Bilingual Children's Speech Perception: Developmental Effects
Jennifer Schmaus; Nancy He; Paula Garcia, PhD; Kanae Nishi, PhD, Boys Town National Research Hospital, Omaha, NE

Sentence Materials to Examine Context Use in School-Age Children
Nancy He; Jennifer Schmaus; Paula Garcia, PhD; Abigail Stewart; Dawna Lewis, PhD; Tessa McDermott; Kanae Nishi, PhD, Boystown National Research Hospital, Omaha, NE

Cues for Vowel Identification Used by Children with Hearing Impairment
Mark Hedrick, PhD; Kristen Mills, MA; Kelly Yeager, AuD, The University Of Tennessee, Knoxville, TN

Contribution of Aided Audibility to Real-world Hearing Aid Outcomes
Subong Kim, MS; Yu-hsiang Wu, PhD; Elizabeth Stangl, AuD; Ruth Bentler, PhD, The University Of Iowa, Iowa City, IA
Christi Miller, PhD; Christopher Bishop, PhD; Kelly Tremblay, PhD, the University of Washington, Seattle, WA

Acceptable Hearing Aid Throughput Delay for Listeners with Hearing Loss under Noisy Conditions
Justin Burwinkel, AuD; Martin Mckinney, PhD, Starkey Hearing Technologies, Eden Prairie, MN

Effects of Hearing Aids/Assistive Listening Devices on Implantable Cardiac Devices
Farah Dubaybo, BA; Scott Marrus, MD, PhD; Mitchell Faddis, MD, PhD, Washington University School Of Medicine, St. Louis, MO

Acoustic Effects of Amplitude and Frequency Compression on High-frequency Speech
Joshua Alexander, PhD; Varsha Rallapalli, AuD, Purdue University, West Lafayette, IN

Updated SADL Norms for Advanced Digital Technology Hearing Aids
Carole Johnson, PhD; Anna Jilla, MS; Jenna Smith; Kristin Winkler; J. Connor Sullivan, Department Of Communication Sciences And Disorders, University Of Oklahoma Health Sciences Center, Edmond, OK
Jeffrey Danhauer, PhD, University of California, Santa Barbara, CA

Updated IOI-HA Norms for Advanced Digital Technology Hearing Aids
Carole Johnson, PhD; Anna Marie Jilla, PhD; Jenna Smith; Kristin Winkler; J. Connor Sullivan, Department Of Communication Sciences And Disorders, University Of Oklahoma Health Sciences Center, Edmond, OK
Jeffrey Danhauer, PhD, University of California, Santa Barbara, CA

Effects of Working Memory and Amplification on Self-adjusted Time-compressed Speech
Jaclyn Schurman, AuD; Douglas Brungart, PhD, Walter Reed National Military Medical Center, Bethesda, MD
Chelsea Vogel; Sandra Gordon-Salant, PhD, University of Maryland, College Park, College Park, MD
**Poster # 155 - (AMP17)**

**Effects of Hair on Spectral-Temporal Characteristics of Wind Noise**  
KingDeK Chung, PhD, Northern Illinois University, DeKalb, IL

**COCHLEAR IMPLANTS**

**Poster # 156 - (CI09)**

**Hybrid Cochlear Implants: What Happens If I Lose Hearing?**  
Camille Dunn, PhD; Marlan Hansen, MD; Bruce Gantz, MD, University Of Iowa, Iowa City, IA

**Poster # 157 - (CI10)**

**Current Profile of Adults Presenting for Preoperative Cochlear Implant Evaluation**  
Jourdan Holder, BS; René Gifford, PhD, Vanderbilt University, Nashville, TN

**Poster # 158 - (CI11)**

**Spatial Release from Masking in Adults with Bilateral Cochlear Implants**  
Timothy Davis, AuD; René Gifford, PhD, Vanderbilt University, Nashville, TN

**Poster # 159 - (CI12)**

**Does Contralateral Amplification Improve the Cochlear Implant Listening Experience?**  
Todd Ricketts, PhD; Erin Picou, PhD; Kristen D’onofrio, AuD, Vanderbilt University Medical Center, Nashville, TN

**Poster # 160 - (CI13)**

**The Effects of Bimodal Hearing on Emotional Responses to Sound**  
Erin Picou, PhD; Kristen D’onofrio, AuD; Todd Ricketts, PhD, Vanderbilt University Medical Center, Nashville, TN

**Poster # 161 - (CI14)**

**Overcoming Head-Shadow with Binaural Voice Streaming in Cochlear Implants**  
Smita Agrawal, PhD, Advanced Bionics. LLC, Valencia, CA

**AUDITORY PROCESSING**

**Poster # 162 - (AP06)**

**Normative Data and Reference Equivalent Sound Pressure Levels for Circumaural Earphones at Conventional & Extended High-frequencies**  
Navid Shahnaz, PhD; Ainsley Ma; Shahab Ravanparast, MA, University Of British Columbia, Vancouver, BC

**Poster # 163 - (AP07)**

**Evaluation of the Radioear DD450 Earphone**  
Clae Smull, BA; Robert Margolis, PhD, University Of Minnesota, Minneapolis, MN

**Poster # 164 - (AP08)**

**Generalization and Resilience to Distractors in Auditory Working Memory**  
DiGiovanni Jeffrey, PhD; Travis Riffle; Gilmore Carissa; Mikol Jennifer, Ohio University, Athens, OH

**Poster # 165 - (AP09)**

**Effects of Modality and Linguistic Materials on Memory**  
Jenna Pattison, BS; Kathleen Pichora-Fuller, PhD, University Of Toronto, Mississauga; Sherri Smith, PhD, Mountain Home VA Medical Affairs, Mountain Home, TN

**Poster # 166 - (AP10)**

**Relating Complex Verbal and Non-Verbal Spans to Listening Comprehension**  
Jeffrey DiGiovanni, PhD; Travis Riffle, Ohio University, Athens, OH; Aurora Weaver, PhD, Auburn University, Auburn, AL
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