

### ARO COUNCIL MEMBERS



YURI ARGAWAL, M.D.

President (2023-2024)



SUNIL PURIA, PH.D.

President- Elect (2023-2024)



ANNA LYSAKOWSKI, PH.D.

Secretary/Treasurer (2023-2026)



ELISABETH OLSON, PH.D.

Past President (2023-2024)



JOHN OGHALAI, PH.D.

Past Past President (2023-2024)



BRANDON COX, PH.D

Program Chair (2023-2026)



BARBARA CANLON, PH.D.

Communications Officer (2021-2024)



MANUEL MALMIERCA, M.D., PH.D

Council Member (2021-2024)



AVRIL GENENE HOLT, PH.D.

Council Member (2022-2025)



RADHA KALLURI, PH.D.

Council Member (2023-2026)

# WELCOME FROM THE ARO PRESIDENT

Welcome to the 2024 Association for Research in Otolaryngology (ARO) MidWinter Meeting! We are thrilled to welcome you to Anaheim, California!

We are grateful to our members for keeping research in otolaryngology strong the past few years. ARO had over 300 new members join us in 2023 and we are excited to see what we can accomplish together. Over the course of 2023, ARO created the new Clinician Scientist Committee, launched the new ARO Scholars program, and saw an increase in virtual learning and networking opportunities due to the vital efforts of all our committees.

This year brought 1048 abstract submissions resulting in 200 oral presentations and 860 posters. Dr. Steve Lomber, one of Pioneer in Basic Science co-awardees this year, and Dr. Brandon Cox provided leadership for ARO as the Scientific Chair and Chair of the Program Committee. Drs. Cox and Lomber and the members of the Program Committee have organized a vibrant and exciting meeting. This year you can look forward to the Presidential Symposium in two parts. The first titled 'The Clinician-Scientist Workforce in Otolaryngology: Strategies for the Future,' with talks by Drs. Aaron Remenschneider, Jennifer Stone, Alan Cheng, Marlan Hansen, and Debara Tucci, taking place on Saturday, February 3rd from 8 AM – 12 PM. The second, a Late Breaking addition to the program, titled 'Late Breaking Presidential Symposium: OTOF Gene Therapy Clinical Trial,' with talks by Drs. Laurent Desire, Emmanuel J. Simons, Vassili Valayannopoulos, Jieyu Qi, and Yilai Shu on Saturday, February 3rd from 10 AM – 12 PM. Both symposia will take place in the Platinum Salon 5.

Dr. Judy Dubno will receive the Award of Merit, the highest commendation in our society. We look forward to celebrating her accomplishments at the Award of Merit session on Monday, February 5th from 6:30 PM - 8:30 PM in Platinum Salon 5. The ceremony will be followed by a reception where all attendees are welcome.

Young Investigators: spARO has curated a full schedule for you including mentorship sessions and networking! Be sure to view the schedule and plan your conference experience.

Debara Tucci, Director of the National Institute on Deafness and Other Communication Disorders (NIDCD) will hold a Town Hall on Monday, February 5th from 4:30 PM – 5:00 PM in the Platinum Salon 4, in conjunction with what is formerly known as the ARO Business Meeting. At the conclusion of this session, I will hand the gavel to our President–Elect, Dr. Sunil Puria, and thank Past–President, Dr. Elisabeth Olson, and Past–Past–President Dr. John Oghalai for all their help, and their outstanding service to ARO.

Again, it is my immense pleasure to welcome attendees to the 2024 MidWinter Meeting. I hope you have a wonderful time at the MidWinter Meeting!

### **About ARO**

#### **OUR HISTORY**

The association was founded in 1973. It is under the direction of the ARO Council that consists of a President, a Past President, a President-Elect, a Secretary-Treasurer, a Communications Officer, a Program Committee chair, a Nomination Committee chair, and three Council Members At-Large, all of whom are elected from and by the membership. The functions of the organization are established through bylaws carried out with the help of committees and counsel from past presidents.

#### **OUR MISSION STATEMENT**

The mission of the Association shall be to encourage and promote basic and clinical research in the broad fields of Otolaryngology, hearing and balance science, and related areas. To achieve these objectives, and to foster collegial assembly and stimulate scientific collaboration among its members, the Association shall encourage year-round scientific engagement through meetings and other activities.

#### **OUR VISION**

Our vision is to pioneer inventive excellence in pure and applied science by nurturing researchers to perform the most rigorous and exciting science in the study of hearing and balance and related otolaryngological fields. We seek to use our collective knowledge to make fundamental discoveries and develop ground-breaking treatments that improve quality of life.

#### **OUR CORE VALUES**

- Science: We promote rigorous original (same as mission) basic science and clinical research that moves forward our understanding of hearing and balance sciences and related fields. We strive to provide a forum for dissemination and meaningful discussion of results.
- **Diversity**: We acknowledge and honor the fundamental value and dignity of all individuals. We are committed to maintaining an inclusive environment that removes barriers and respects diverse people, approaches, and ideas.
- Integrity: We maintain the highest ethical standards in the collection, sharing and dissemination of research and champion best practices in both basic and clinical experimentation.
- Collaboration: We believe in listening and evolving together by embracing the exchange of ideas through initiatives including, but not limited to, interdisciplinary research, education, mentorship, and professional networking.
- **Education:** We support and empower our community by providing multi-faceted educational and mentorship opportunities relevant to early career professionals and throughout the career-span.









**Recording Policy:** ARO does not permit audio or photographic recording of any research data presented at the meeting-expect for individuals who may have difficulty understanding the speaker during their initial presentation.



#### **Main Session Recordings**

The Symposia and Podium sessions in Platinum Ballroom 5, Platinum Ballroom 6 and Grand Ballroom F are being recorded and will be made available to all attendees after the meeting.



ARO has **Assisted Listening Devices** available. If you need assistance, please see ARO staff at the Registration Desk.

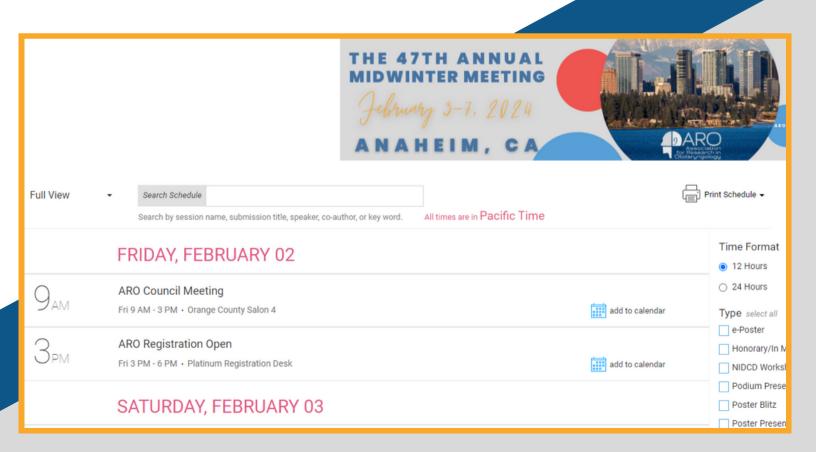
### **SCHEDULE OF EVENTS**

View the online schedule for the most up-to-date times, room assignments, and speaker times. By expanding the speaker list you can see when each speaker is slotted to present.

You can add the sessions you don't want to miss to your personal calendar and view the 2024 MWM abstracts in the schedule too! Visit the online schedule and select 'Abstract/Session info' for any session to see all that was submitted!

For a full guide on the tools available to you in the schedule, please see here.

### View the Schedule



Apple App Store

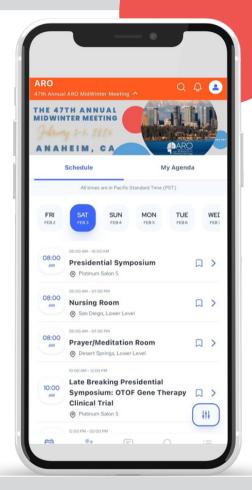
Scan here!



## Download the ARO Mobile App

Download the app to view the agenda, chat with fellow attendees, view posters, and more!

Search "ARO 2024"





Scan here!
Google Play Store



ARO will own the Anaheim Marriott, a bright, modern hotel large enough for our meeting, yet easily navigable. Nearly every meeting room is located on the Lobby Level with centralized spaces for networking. The glass-walled lobby overlooks the pool with a dining terrace. Feast on California-style culinary creations with an international twist at nFuse, our onsite signature restaurant and bar. Casual food is available fast at Slice Pizza and the Market. And of course, it's waling distance to Disneyland.

ADDRESS: 700 W. Convention Way, Anaheim, California 92802 USA

# AVAILABLE ACCESSIBILITY & ACCOMMODATIONS

ARO has Assisted Listening Devices available at the registration desk should they be desired. Please come to the registration desk and speak with an ARO Staff member (wearing green) for assistance. Each meeting room has an assigned receiver for you to use for each session in that room.

### Need to Check-In, Ask A Question, or Get Assistance? Find us at the ARO Registration Desk during these hours:

- Friday, February 2, 3:00 PM 6:00 PM, Platinum Registration
- Saturday, February 3, 7:00 AM 7:00 PM, Platinum Registration
- Sunday, February 4, 7:00 AM 6:00 PM, Platinum Registration
- Monday, February 5, 7:00 AM 5:00 PM, Platinum Registration
- Tuesday, February 6, 7:00 AM 5:00 PM, Platinum Registration
- Wednesday, February 7, 7:00 AM 11:00 AM, Platinum Registration

Outside of registration hours, email headquarters@aro.org.

#### **JOIN THE CONVERSATION**

ARO has gone social and we invite you to join the online conversation. Please be sure to follow/like the following ARO social media accounts:





@AROMWM



And do not forget to use the hashtag #2024MWM if you post pictures or comments about the 2024 Meeting.

#### **NURSING PARENTS**

If you are in need of using the private nursing room, please ask a member of the ARO staff at the Registration Desk(wearing green).

### POSTER PRESENTATION DETAILS

Posters are scheduled to remain on display for a duration of 24 hours. However, your assigned time slot designates when you will be presenting your poster. Outside of the designated presentation times, you are free to return to your poster at your convenience.

Schedule for assigned poster presentation sessions:

- Saturday, February 3 1:00 pm to 3:00 pm (odd numbers 1:00-2:00 PM/even numbers 2:00-3:00 PM)
- Sunday, February 4 1:15 pm to 3:15 pm (odd numbers 1:15-2:15 PM/even numbers 2:15-3:15 PM)
- Monday, February 5 1:15 pm to 3:15 pm (odd numbers 1:15-2:15 PM/even numbers 2:15-3:15 PM)
- Tuesday, February 6 1:15 pm to 3:15 pm (odd numbers 1:15-2:15 PM/even numbers 2:15-3:15 PM)

You will mount your poster on the fiberboard with push pins (thumbtacks), which will be provided. Since your display will be held on the fiberboard with push pins, DO NOT mount your presentation materials on a heavy board because doing so may make it difficult to keep the material in position.

### E-POSTER DETAILS

Attendees will be able to view e-Posters online before, during, and after the meeting. Poster presenters are to have their poster, transcript, and audio uploaded by January 31, 2024. **CLICK HERE** for a guide on how to navigate the Poster Gallery. You must be logged in and registered for the meeting to view the posters.

- All poster presenters will have an e-Poster.
- Attendees may leave comments and questions on a poster at any time.
   Presenters can then answer these questions online and/or in-person if you visit their poster.

Access the e-Poster Gallery!

# NAME BADGES

Below are descriptions of the items you can add to your name badge.

Take any that you desire!





- Rainbow/Ally Sticker This sticker aims to support LGBTQ+ inclusion and equality in the meeting place. An Ally aims to raise knowledge, create understanding, and equip people not part of the LGBTQ+ community to be an ally for colleagues who are identifying as LGBTQ+.
- Name Badge Ribbons Badge ribbons are a way to recognize & identify the roles of some attendees during the conference! Add those that apply to you!

## JOE BOARD

ARO has a job board where interested parties can post their open positions and those open to new opportunities can share their resumes. Linked below is access to this job board. You must be logged in and registered for the meeting to view the job board.

### Access the job board!

Onsite meeting attendees will be able to indicate if they have an open position or if they are interested in learning about job opportunities by wearing a cyan or yellow round sticker on their name badge.



Cyan Dot - I am interested in learning about job opportunities!



Yellow Dot - Ask me about job opportunities!

### 2023-2024 Program Committee

#### **Program Committee Chair**

Brandon Cox, Ph.D.

#### **Scientific Program Chair**

Steve Lomber, Ph.D.

#### **Committee Members**

Aynur Aliyeva, M.D.

Hela Azaiez, Ph.D.

Karen Banai, Ph.D.

Olivia Bermingham-McDonogh, Ph.D.

George William S. Burwood, Ph.D.

Divya A Chari, M.D.

Steven Eliades, M.D., Ph.D.

Katharine A. Fernandez, Ph.D.

Jeffrey R. Holt, Ph.D.

Artur Indzhykulian, M.D., Ph.D.

Zsuzsanna Kocsis, Ph.D

Jennifer Krizman, Ph.D.

Dhasakumar Navaratnam, M.D., Ph.D.

Suhrud Rajguru, Ph.D.

Rob Raphael, Ph.D.

Anthony J Ricci, Ph.D.

Regie Lyn Santos-Cortez, M.D., Ph.D.

William Slattery, M.D.

Clark Elliott Strimbu, Ph.D.

Ruili Xie, Ph.D.



# Presidential Symposia

# 'The Clinician-Scientist Workforce in Otolaryngology: Strategies for the Future'

#### **Chair:**

Yuri Agrawal, Ph.D.

University of Colorado

#### **Presenters:**

Aaron Remenschneider, Ph.D.

Boston Children's Hospital

Background and Overview of Clinician-Scientists in Otolaryngology

#### Jennifer Stone, Ph.D.

University of Washington, Virginia Merrill Bloedel Hearing Resource Center Mentoring and Supporting Clinician-Scientists in Diverse Otolaryngology Departments: A PhD's Perspective

#### Alan Cheng, Ph.D.

Stanford University
How Should We Train the Next Generation of Physician-Scientists?

#### Marlan Hansen, Ph.D.

**UIHC** 

Role of the Department Chair in Supporting Clinician-Scientists

#### Debara Tucci, M.D., M.S., M.B.A.

National Institute on Deafness and Other Communication Disorders/NIH Global Impact of Hearing Loss, and Efforts to Improve Accessibility Worldwide

### Late Breaking - Presidential Symposia

### 'OTOF Gene Therapy Clinical Trial'

#### Chair:

Yuri Agrawal, University of Colorado

#### Co-Chair:

**ZhengYi Chen,** Massachusetts Eye and Ear Infirmary **Wade Chien,** Johns Hopkins School of Medicine

#### **Presenters:**

#### Laurent Desire, Ph.D.

Sensorion

SENS-501 Gene Therapy for Autosomal Recessive Non-Syndromic Deafness 9 (DFNB9)

#### Emmanuel J. Simons, Ph.D., M.B.A.

Akouos, Inc.

Clinical Development of AK-OTOF Gene Therapy for OTOF-Mediated Hearing Loss

#### Vassili Valayannopoulos, M.D., Ph.D., M.B.A.

Regeneron

CHORD: A Phase 1/2 Open-Label, Multicenter Trial to Evaluate Intracochlear Administration of Db-Oto Gene Therapy in Pediatric Patients With Profound Sensorineural Hearing Loss due to Biallelic Otoferlin Mutations

#### Jieyu Qi, Ph.D.

Southeast University

AAV-Mediated Gene Therapy Restores Hearing in Patients With DFNB9 Deafness

#### Yilai Shu, M.D., Ph.D.

ENT Institute, Eye and ENT Hospital, State Key Laboratory of Medical Neurobiology and MOE Frontiers Center for Brain Science, Fudan University AAVI-HOTOF Gene Therapy for Children With Autosomal Recessive Deafness 9

### 2024 AWARD OF MERIT

Judy R. Dubno, Ph.D.

Medical University of South Carolina
Judy R. Dubno grew up in Manhattan (New
York City), attended the very competitive
Bronx High School of Science, and later
earned a PhD from the City University of New
York (CUNY) Graduate School and University
Center, where her major advisor was Harry
Levitt and Gerald Studebaker was a principal
mentor. Her dissertation research involved

predicting consonant confusions by individuals with normal and impaired hearing from acoustic analyses of consonants. She was also heavily involved in the development, recording, and analysis of the CUNY Nonsense Syllable Test, which was among the first closed-set tests that generated consonant confusion matrices (from paper and pencil responses) and is still in use today. Her doctoral research was part of a large, National Institutes of Health (NIH)-funded project to develop and evaluate methods for the automated selection of hearing-aid specifications using a wearable master hearing aid, one of the first in the analog era, using an early form of a multivariate adaptive testing strategy. Following the PhD, Dr. Dubno became an NIH-funded postdoctoral fellow at the UCLA School of Medicine and then joined the faculty at UCLA, where she mentored students, postdocs, and otolaryngology residents, and conducted collaborative research until 1991 when she moved to MUSC.

Dr. Dubno's research at MUSC focuses primarily on understanding the pathophysiology of presbyacusis and its consequences for communication. A particularly important contribution has been her leadership of a 35-year longitudinal cohort study of age-related hearing loss alongside an exceptional, multidisciplinary, and international team of research colleagues, including program co-founders Jack Mills, Rick Schmiedt, and Brad Schulte. Her research has been funded continuously by NIH and other awards since 1981.

More recently, Dr. Dubno has been participating in research and public service to support improved accessibility and affordability of hearing health care, especially hearing aids, and to enact the necessary federal policies and legislation. This began in 2009 with a partnership with Amy Donahue (then at NIDCD) and Lucille Beck at the VA. She served on a National Academies of Sciences, Engineering, and Medicine (NASEM) committee on this topic and is now a member of the Lancet Commission that is addressing the global burden of hearing loss.

Dr. Dubno has mentored many graduate and medical students, postdoctoral fellows, otolaryngology residents, and junior faculty, and was recognized by MUSC with its inaugural mentoring award. The most rewarding moments of Dr. Dubno's career are seeing those she mentored achieve success in auditory research, teaching, and leadership positions. Throughout her career, Dr. Dubno has benefited from many opportunities to serve and lead scientific societies (including ARO), participate on NASEM boards/committees, and serve the NIH on review and other committees and as a member of the NIDCD Advisory Council. She and her colleagues received Editor's Awards from the Journal of Speech and Hearing Research and Ear and Hearing and she delivered AAS's Carhart Memorial Lectureship. Dr. Dubno has been fortunate to receive several national awards and achieved society fellowships in recognition of her research and leadership, and credits her mentors, colleagues, and collaborators at CUNY, UCLA, MUSC, and around the US and the world (and her husband, John) who have contributed immeasurably to her achievements.

## AWARD OF MERIT PAST RECIPIENTS

1978 Harold Schuknecht, M.D. \*

1979 Merle Lawrence, Ph.D. \*

1980 Juergen Tonndorf, M.D. \*

1981 Catherine Smith, Ph.D. \*

1982 Hallowell Davis, M.D. \*

1983 Ernest Glen Wever, Ph.D. \*

1984 Teruzo Konishi, M.D. \*

1985 Joseph Hawkins, Ph.D. \*

1986 Raphel Lorente de No, M.D. \*

1987 Jerzy E. Rose, M.D. \*

1988 Jozef Zwislocki, Sc.D.\*

1989 Ake Flock, Ph.D.\*

1990 Robert Kimura, Ph.D.\*

1991 William D. Neff, Ph.D.\*

1992 Jan Wersall, Ph.D.\*

1993 David Lim, M.D.\*

1994 Peter Dallos, Ph.D.

1995 Kirsten Osen, M.D.

1996 Drs. Ruediger Thalmann,

M.D.\* & Isolde Thalmann, Ph.D.

1997 Jay Goldberg, Ph.D.\*

1998 Robert Galambos, M.D.,

Ph.D.\*

1999 Murray B. Sachs, Ph.D.\*

2000 David M. Green, Ph.D.

\* Deceased

2001 William S. Rhode, Ph.D.

2002 A. James Hudspeth, M.D.,

Ph.D.

2003 Dr. David Kemp

2004 Donata Oertel, Ph.D.

2005 Edwin W Rubel, Ph.D.

2006 Robert Fettiplace, Ph.D.

2007 Eric D. Young, Ph.D.

2008 Brian C.J. Moore, Ph.D.

2009 M. Charles Liberman, Ph.D.

2010 Ian J. Russell

2011 Robert V. Shannon, Ph.D.

2012 David P. Corey, Ph.D.

2013 Karen P. Steel, Ph.D.

2014 H. Steven Colburn, Ph.D.

2015 Thomas B. Friedman, Ph.D.

2016 Geoffrey A. Manley, Ph.D.

2017 Alan Palmer, Ph.D.

2018 Christine Petit, Ph.D.

2019 Peter M. Narins, Ph.D.

2020 Lynne A. Werner, Ph.D.

2021 Tom Yin, Ph.D.

2022 Christoph Schreiner, M.D.,

Ph.D.

2023 Doris Wu, Ph.D.



















### 2024 GERALDINE DIETZ FOX YOUNG INVESTIGATOR AWARD

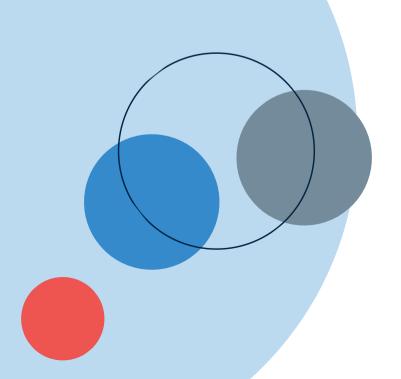


### Pierre Apostolides, Ph.D.

University of Michigan

Pierre Apostolides is an assistant professor at the University of Michigan's Kresge Hearing Research Center in the Department of Otolaryngology. His lab focuses on understanding how interconnected groups of neurons ("microcircuits") give rise to behaviorally relevant activity in the central auditory system.

His lab focuses on understanding how interconnected groups of neurons ("microcircuits") give rise to behaviorally relevant activity in the central auditory system. Prior to the University of Michigan, Pierre completed a post-doc at HHMI's Janelia Research Campus (2014-2018) and a Ph.D. at Oregon Health & Science University's Vollum Institute (2008-2014).



# 2024 PIONEER AWARD IN BASIC SCIENCE



### Andrej Kral, M.D., Ph.D.

Hanover Medical School, Macquarie University

Andrej Kral studied medicine in Bratislava (Comenius University, MD 1993, PhD 1998). During his PhD he developed models of neuronal networks exploring auditory frequency discrimination ability.

He subsequently moved to the Institute of Sensory Physiology, J.W.Goethe University, Frankfurt am Main (Prof. R. Klinke), where he was appointed associate professor of physiology ("Priv.-Doz.") in 2002. From 2004 to 2009 he served as Professor of Neurophysiology at the University of Hamburg School of Medicine. Since 2009 he has been appointed Chair of Auditory Neuroscience at the Clinics of Otolaryngology, Hannover Medical School (MHH). Andrej Kral heads the Dept. of Experimental Otology. Since 2018 he has been also Professor of Systems Neuroscience at Macquarie University, Sydney. In 2017 he has been elected a member of the German National Academy of Science and in 2018 of the Collegium Oto-Rhino-Laryngologicum Amicitiae Sacrum (CORLAS). A. Kral is specialized to auditory neurophysiology in animals (rodents, cats) and humans (EEG), his research interests include hearing loss, central effects of deafness, brain development and plasticity, neuroscience of cochlear implants and technology of neuroprosthetics (website: www.neuroprostheses.com).

With H.Maier and F.Aplin he published a textbook on neuroprosthetics ("Prostheses for the Brain: Introduction to Neuroprosthetics", 2021, Academic Press) and with A.N.Popper and R.R.Fay edited the volume on Deafness (vol. 47, 2013) of the Springer Handbook of Auditory Research. His lab received funding, among others, from German Research Society (Deutsche Forschungsgemeinschaft, including Cluster of Excellence Hearing4All), National Science Foundation (USA), German Academic Exchange Service (DAAD), European Union, Oticon Foundation and cochlear implant industry.

# 2024 PIONEER AWARD IN BASIC SCIENCE



### Stephen G. Lomber, Ph.D.

McGill University

Stephen G. Lomber, Ph.D. is a Professor of Physiology, Psychology, Neurology and Neurosurgery, and Biomedical Engineering at McGill University where he holds the Canada Research Chair in Brain Plasticity and Development.

Dr. Lomber received degrees in Neurobiology from the University of Rochester (B.Sc.) and the Boston University School of Medicine (Ph.D.). Dr. Lomber's lab (<a href="https://www.cerebralsystems.ca">www.cerebralsystems.ca</a>) uses an integrated approach to examine processing in the auditory cortex. His lab has pioneered the use of focal cooling to reversibly deactivate regions of the cerebrum. Throughout his training and career, the focus of Dr. Lomber's work has been on brain plasticity following either central or peripheral damage to the visual or auditory system during development.

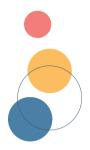
Using a unique combination of techniques (electrophysiological recording, reversible deactivation, psychophysical testing, functional imaging, computational modelling, and connectional neuroanatomy), he has made significant advances in understanding how the brain adapts to the loss of a sense (deafness) and how the brain adapts to the initiation or reinstatement of a lost sense by examining the consequences of cochlear implants on cortical function. Dr. Lomber's research program seeks to understand the consequences of sensory loss and restoration to the relationship between altered perception and cognitive function. Steve is the

recipient of numerous research and teaching awards and has previously served as an Associate Editor at Hearing Research and presently serves on the Board of Directors of the Canadian Academy of Audiology and is the Scientific Program

Chair for the Association for Research in Otolaryngology.

# 2024 TRAVEL AWARD RECIPIENTS

Lemira Esparza Haon Futamata Titilayo Mabogunje Caryl Young Francisco Barros Becker **Antonio Bon-Nieves** Federico Ceriani **Amanda** D'Espessailles Adam Hockley Adele Moatti Giorgia Cantisani Sheila Flanagan **Amandine Jarysta** John Lee Mit Bhavsar

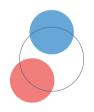


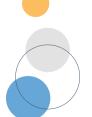




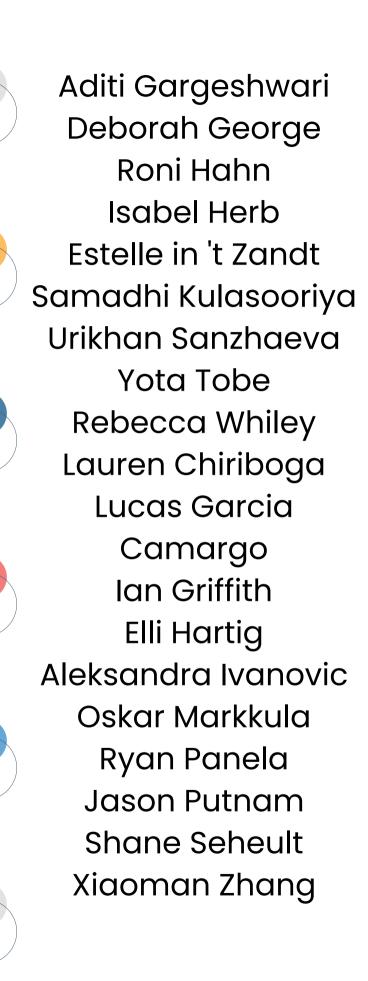
Jinho Park

Kimberly Ramirez

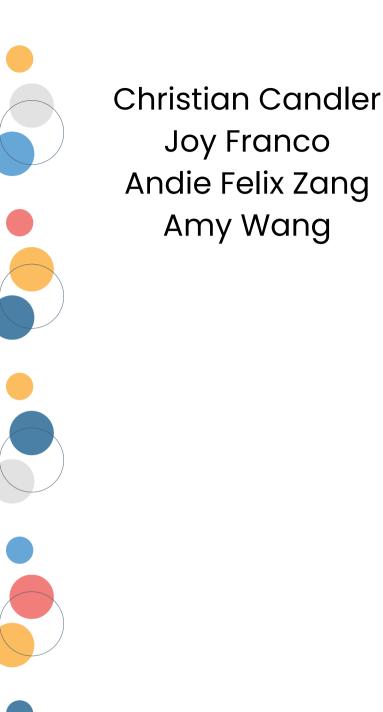




Susanne Sasse Mitsuo Sato **Christian Candler** Jessica Landry Elise Ajay Katelyn C. Boulanger Weisheng Liang Louay Madanat Maryam Maghsoudi Shaghaghi Ana I. Lopez-Porras **Chong Cui** Hannah Oberle Kelly Otsuka Jingyun Qiu Ajmal Abdul Azees Robel Alemu Isabelle Arseneau-Bruneau **Emily Antes** 



Matthew Wiefels Ogechukwu Anwaegbu Carolina Chu Elise De Cuyper **Garner Fincher** Miles Klimara Amina Khan Rebecca Revol Dimitrios Daskalou Maria Camila Hurtado **Jackson Graves** George Samaras **Anselm** Gadenstaetter



## 2024 POSTER BLITZ PARTICIPANTS

Isabel Herb Jazmin Sanchez Sanchez Emma Wawrzynek Ajmal Abdul Azees Lidea Shahidi Dietmar Wohlbauer Lemira Esparza Andrea Bae Samuel Adadey Mehmet Alp Demirhan Lingyun Zhou Yuwei Sun Urikhan Sanzhaeva Kristine McLellan Melissa Hazen **Luoying Jiang** Samah Ahmed Haon Futamata Coty Jasper Aditi Gargeshwari **Ashley Micuda** 

Valeria Castagna Joy Franco Masatoshi Fukuda Yoani Herrera Patrick Parker Yingxuan Wang **Madeline Berns** Rebecca Whiley Louay Madanat **Payton Charlton** Manda Fischer Lama Khalaily Kailyn McFarlane Ryan Panela Alex Clonan Max Gattie

# VIRTUAL SPARO SESSIONS PRE-MIDWINTER MEETING

The following sessions happened virtually prior to the MWM

#### **Mentoring Session: Clinician Scientist**

Friday, January 5 10:30 AM -12:00 PM ET

Balancing demanding research and clinical responsibilities is challenging, but also provides unique research avenues and experiences. In this session, two leading clinician-researchers will share their experiences and lead a discussion about how clinicians can successfully integrate scientific investigation into their work.

#### **Speakers:**

#### Konstantina Stankovic, M.D., Ph.D.

Bertarelli Foundation Professor and Chair, Department of Otolaryngology, Stanford University School of Medicine

#### Jay Rubinstein, M.D., Ph.D.

Virginia Merrill Bloedel Professor, University of Washington



#### **Mentoring Session: Publishing**

Friday, January 5 3:00 - 5:00 PM ET

Sharing work in a peer-reviewed publication is an exciting and rewarding conclusion to a body of work, however the journey can be daunting when deciding when data collection is complete, choosing an appropriate journal, considering impact factor, sharing elucidating negative data, and deliberating other factors. On the other end of the manuscript, peer-reviewing submissions is a gratifying way to help the field while getting a sneak peek at bleeding-edge research, yet presents challenges when balancing praise and critiques while considering your own biases. In this session, two editors at top journals will share good approaches in publishing and reviewing research, and lead an open discussion where questions and discussion are encouraged.

#### **Speakers:**

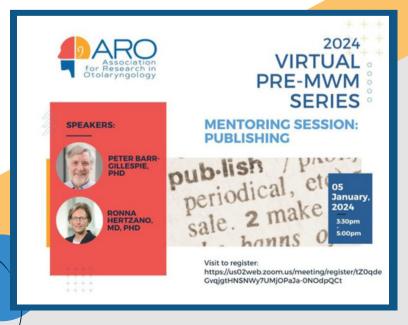
#### Peter Barr-Gillespie, Ph.D.

Professor of Otolaryngology & Chief Research Officer, Oregon Health and Science University

#### Ronna Hertzano, M.D., Ph.D

Cowan Professor of Auditory Neuroscience,

Director, Neuroscience Institute, Carnegie Mellon University



#### Mentoring Session: Mentor-Mentee Communication

Monday, January 8 10:30 AM - 12:00 PM ET

Good scientific mentorship is key for the personal and professional growth of trainees in academia. An effective way to maintain a good mentor-mentee relationship is good communication between both parties. In this session, trainees will discuss effective communication techniques, strategies to manage their relationships with their mentors, and techniques to resolve communication challenges to maximize the benefit from mentoring relationships. This session will consist of a presentation from a panel of leading scientists in an interactive forum for questions and discussion.

#### **Speakers:**

#### Teresa Mastracci, Ph.D.

Assistant Professor, Department of Biology, Indiana University

#### Monita Chatterjee, Ph.D.

Senior Scientist and Director, Auditory Prostheses & Perception Laboratory, Boys Town National Research Hospital





#### Mentoring Session: Work/Life Balance

Monday, January 8 3:30 PM - 5:00 PM ET

Research can be an overwhelming environment, with days long experiments and late night analysis sessions. The attrition of great researchers is very high, as people suffer from burnout because they didn't take proper precautions. In this session, we talk about strategies on how to create and maintain a good work-life balance and foster a long and above all healthy career in research.

#### **Speakers:**

#### Angela Garinis, Ph.D.

Assistant Professor and Clinical Audiologist at Oregon Health & Science University & Principal Investigator at VA National Center for Rehabilitative Auditory Research

#### Melissa Caras, Ph.D.

Assistant Professor, Department of Biology University of Maryland



# SPARO SESSIONS AT THE MIDWINTER MEETING

The following sessions will happen during the MWM

#### spARO Mentoring Session: Careers in Academia

Saturday, February 3 1:00 PM - 2:00 PM Platinum Salon 4

Establishing yourself as a principal investigator with a new lab in an academic environment can be an exciting yet bumpy road to navigate. The panelists in this session will share their observations and experiences in establishing and funding independent research laboratories, discuss the keys for successfully applying for research support, and suggest avenues available to new or mid-career faculty members to facilitate the success of their lab. This session will consist of short presentations from a panel of leading scientists in an interactive forum for questions and discussion.

#### **Speakers:**

**Basille Tarchini** 

Jackson Labs

#### **Gabriel Corfas**

University of Michigan

#### spARO Mentoring Session: Careers in Industry

Sunday, February 4 12:45 PM - 1:45 PM Platinum Salon 4

While there are similarities between working in academia and industry, pursuing a successful career in industry often requires a change in approach for former academics. Leaders from companies investigating phenomena related to ARO research will lead a discussion about how to successfully pivot from academic research into developing a career in industry.

#### **Speakers:**

#### **Meghan Drummond**

Regeneron Pharmaceuticals

#### **Matthew Mullen**

**Tucker Davis Technology** 

#### spARO Session: Navigating Grant Landscape

Tuesday, February 6 12:45 PM - 1:45 PM Platinum Salon 4

This session will feature short presentations from a panel of leading scientists to introduce various grants and fellowships for graduate students and postdoctoral fellows in the U.S. and Europe. The session will focus on federal and private research funding sources, eligibility considerations for selected grants, the application process, and the peer review process. This session will be an interactive forum with questions and discussion.

#### **Speakers:**

#### **Mark Warchol**

Washington University

#### **Tobias Moser**

Institute for Auditory Neuroscience, Gottingen

# ARO DIVERSITY & MINORITY AFFAIRS COMMITTEE EVENTS AT THE MIDWINTER MEETING

#### **Supportive Allyship & STEM**

SUNDAY, FEBRUARY 4 • 4:00 PM - 6:00 PM

#### **Speaker:**

Dr. Meg Warren

Associate Professor of Management at Western Washington University

The Association for Research in Otolaryngology (ARO) is committed to fostering scientists and technical experts that welcome diverse people, approaches, and ideas. While ARO is becoming more diverse, it reflects a profile largely of Causasian/white and male-identifying members that is characteristic of STEM fields. Thus, the ARO Diversity & Minority Affairs Committee (DMAC) is dedicated to increasing equity and inclusion within the ARO community with year-round educational programming for its members. Last year, the ARO DMAC hosted a wellattended MidWinter Meeting workshop that discussed microaggressions, allyship, and equitable mentoring focused on racial, ethnic and sexual identity minority groups. The culture of sexism, however, is still present in the STEM community. Workplace sexism is a source of stress for non-male-identifying individuals that leads to work dissatisfaction, burnout, and job departure. Allyship by maleidentifying coworkers can be a powerful tool for mitigating the impact of sexism. Therefore, for the 2024 MidWinter Meeting, we propose to dive deeper into gender allyship. The main objectives of this workshop are to provide participants with a descriptive overview of allyship, help them identify situations when allyship is needed, and educate them on how to build allyship safely and supportively.

# The Leaky Pipeline: How Can Mentors Better Support, Advocate, and Encourage Women and Underrepresented Minorities to Remain in the Sciences?

MONDAY, FEBRUARY 5 • 10:15 AM - 12:15 PM PT

#### **Speakers:**

Dr. Cendrine Robinson

Dr. Barbara Shinn-Cunningham

Dr. Lisa Cunningham

Dr. Carolyn McClaskey

The "leaky pipeline" metaphor describes the phenomenon that leads to a progressive loss of women and underrepresented minorities in science, technology, engineering, and math (STEM) disciplines at each stage of the educational system. Women in academia face many barriers to workplace equality, and although they represent more than half of all doctoral recipients in biology-related fields, they only make up 27% of the STEM workforce. Correspondingly, people of color, with disabilities, LGBTQIA+, and from low socioeconomic backgrounds often encounter harassment, prejudice, stereotypes, and bias in the form of microaggressions, stereotype threats, and imposter syndrome, which might contribute to reduced career achievements. The COVID-19 pandemic has further intensified the leaky pipeline and the underrepresentation of women and minorities in STEM. Numerous studies have shown that this continuing disproportionately low representation of women and minorities impedes innovation and discovery by systematically excluding individuals with the ability to make significant contributions to the scientific enterprise. The goals of this symposium are to provide tools to promote diversity in STEM and create opportunities for women and underrepresented minorities. For this, we have invited three distinguished speakers to discuss the societal factors that contribute to the leaky pipeline phenomenon, explore strategies for fostering inclusivity and equitable opportunities within institutions, share insights on empowering marginalized communities through mentorship and support networks, and present recommendations for creating inclusive workplaces that retain diverse talent.

# OTHER WORKSHOPS AT THE MIDWINTER MEETING

#### gEAR Workshop - Introduction to gEAR

SATURDAY, FEBRUARY 3 • 12:30 PM - 2:00 PM PLATINUM SALON 3

#### gEAR Workshop 2.0 - What's New

SUNDAY, FEBRUARY 4 • 12:45 PM - 1:45 PM PLATINUM SALON 3

#### **gEAR Workshop - Analysis Tools**

MONDAY, FEBRUARY 5 • 12:45 PM - 2:15 PM PLATINUM SALON 3

#### **Funding Your Scientific Genius!**

MONDAY, FEBRUARY 5 • 1:15 PM - 2:15 PM PLATINUM SALON 4

#### **Behind the Scenes with Publication!**

TUESDAY, FEBRUARY 6 • 12:45 PM -1:45 PM PLATINUM SALON 2

#### gEAR Workshop - Using gEAR in Publications

TUESDAY, FEBRUARY 6 • 4:00 PM - 5:15 PM PLATINUM SALON 3

### **2023-2024 COMMITTEES**

# Accommodations & Accessibility Committee

#### Chair

Julia Huyck Ph.D.

#### **Members**

Yuri Agrawal M.D. Patricia V. Aguiar M.A.

Courtney Austin B.S.

Rafael da Costa Monsanto

M.D., Ph.D.

Shreshtha Dash M.S.

Ariel Hight Ph.D.

Jeffery Lichtenhan Ph.D.

Corena Loeb B.A.

Emma Sailor Longsworth

B.A.

Uri Manor Ph.D.

Brandon Paul Ph.D.

Samantha Stiepan Ph.D.

Rachel Tapp M.S.

Mary Caroline Yuk B.S.

#### **Awards Committee**

#### Co-Chairs

Nace Golding Ph.D. Katie Kindt Ph.D.

#### **Members**

Michael Deans Ph.D.

Wei Dong Ph.D.

Elisabeth Glowatzki Prof., Dr.

Elizabeth Olson Ph.D.

Ling Reiss Ph.D.

Maria Rubio M.D., Ph.D.

# Communications Committee

#### Chair

Barbara Canlon Ph.D.

#### **Members**

Dylan Chan M.D., Ph.D.
Brandon Cox Ph.D.
Nace Golding Ph.D.
Julia Huyck Ph.D.
Tejbeer Kaur Ph.D.
Katie Kindt Ph.D.
Lukas Landegger M.D., Ph.D.
Bonnie K. Lau Ph.D.
Amanda Lauer Ph.D.
Rebecca Lewis Ph.D.,Au.D.
Steve Lomber Ph.D.
Douglas Oliver B.A.,Ph.D.
Cathy Yea Won Sung Ph.D.
A. Catalina Velez-Ortega
Ph.D.

# Diversity & Minority Affairs Committee

#### Co-Chairs

Jeffrey Cheng Ph.D.
Tejbeer Kaur Ph.D.

#### **Members**

Reza Amanipour Ph.D.

Melanie Barzik Ph.D.

Agudemu Borjigin Ph.D., M.S.,

B.S.

Karina Cramer Ph.D.
Wan Du M.D., Ph.D.
Karl Grosh Ph.D.
Christian Herrera Ortiz Ph.D.
Michele Insanally Ph.D.
Radha Kalluri Ph.D.
Matheus Macedo-Lima Ph.D.
Samantha O' Connell Ph.D.

#### **Education Committee**

#### Chair

Cathy Yea Won Sung Ph.D.

#### **Members**

Andreas Eckhard M.D.
Afagh Farhadi Ph.D., M.S.
Sumana Ghosh Ph.D.
Bryce Hambach B.S.
Judith Kempfle M.D.
Miles Klimara M.D.
Jessica MacLean
Sunil Puria Ph.D.
Tong Shan M.S.
Jarnail Singh Ph.D.
Kirupa Suthakar Ph.D.

# External Relations Committee

#### Co-Chairs

Dylan Chan M.D., Ph.D.
Rebecca Lewis Au.D., Ph.D.

#### **Members**

Michael Bowl D.Phil.
Barbara Canlon Ph.D.
Samantha Davis Au.D.
Nicolas Grillet Ph.D.
Hainan Lang Ph.D.,Prof. Dr. Med
Jiayue Liu B.S.
Ruben Stepanyan Ph.D.
Joerg Waldhaus Ph.D.

## Finance & Investment Committee

#### Chair

Amanda Lauer Ph.D.

#### **Members**

Divya Chari M.D.
Amanda Lauer Ph.D.
Anna Lysakowski Ph.D.
Zahra Sayyid M.D.,Ph.D.
Victor Wong D.Phil.

# Long Range Planning Committee

#### Chair

Bonnie K. Lau Ph.D.

#### **Members**

Seba Ausili Ph.D. Flika Fallah Ph.D. Ksenia Gnedeva Ph.D. Marlan Hansen M.D. Stefan Heller Ph.D. Keiko Hirose M.D. Larry Hoffman Ph.D. Avril Genene Holt Ph.D. Lukas Landegger M.D., Ph.D. Hideko Nakajima M.D., Ph.D. Nathaniel Nowak Ph.D. George Ordiway Ph.D., B.S. Christopher Shera Ph.D. Jonathan Siegel Ph.D. Kirupa Suthakar Ph.D. Haruna Suzuki-Kerr Ph.D. Tal Teitz Ph.D.

Catherine Weisz Ph.D.

### Membership Committee

#### Co-Chairs

Lukas Landegger M.D., Ph.D. Douglas Oliver B.A., Ph.D

#### **Members**

Amel Bahloul Ph.D
Jason Brant M.D.
Rafael da Costa Monsanto
M.D., Ph.D.
Steven Eliades M.D., Ph.D.
Artur Indzhykulian M.D., Ph.D.
Calvin Kersbergen B.S.
Tyler Kramer B.S.
Jennifer Krizman Ph.D.
John Oghalai M.D.
Vignesh Ra B.Sc.

## Travel Awards Committee

#### Chair

A. Catalina Velez-Ortega Ph.D.

#### **Members**

Tim Balmer Ph.D. Gregory Basura M.D., Ph.D. Mo Cui Ph.D. Rafael da Costa Monsanto M.D., Ph.D. Sian Kitcher B.Sc., Ph.D. Xin Luo Ph.D. Nima Maftoon Ph.D. Manuel Malmierca Prof. Dr. 70e Mann Ph.D. Rahul Mittal Ph.D. Anthony Peng Ph.D. David Raible Ph.D. Tianying Ren M.D. Claus-Peter Richter Prof. Dr. Soroush Sadeghi Ph.D. Joseph Santos-Sacchi Ph.D.

Marcel Van Der Heijden Ph.D.

Jing Zheng Ph.D.

# STUDENTS, POSTDOCS, RESIDENTS & FELLOWS OF ARO (SPARO)

#### Chair

Warren Bakay Ph.D.

#### **Members**

Jiayue Liu B.S.

Sara Momtaz Ph.D.

Shreshtha Dash M.S.

Emma Sailor Longsworth B.A.

Kali Burke Ph.D.

Chenggang Chen Ph.D.

Samantha Davis Au.D.

Sara Cacciato Salcedo Ph.D.

Audrey Drotos B.S.

Agudemu Borjigin Ph.D.,M.S.,B.S.

Sumana Ghosh Ph.D.

Katelin Hawbaker B.A.

Calvin Kersbergen B.S.

Sian Kitcher B.Sc.,Ph.D.

Ansley Kunnath B.A.

Matheus Macedo-Lima Ph.D.

Nathaniel Nowak Ph.D.

Samantha O'Connell Ph.D.

George Ordiway Ph.D.,B.S.

Rose Rizzi B.S.

Temuulen Batsaikhan B.Sc.

Ariel Hight Ph.D.

Corena Loeb B.A.

Aynur Aliyeva M.D.

Braulio Peguero Ph.D.

Afagh Farhadi Ph.D.,M.S.

Federica M. Raciti M.S.

Minchul Park B.Sc.

Miles Klimara M.D.

Tong Shan M.S.

Jarnail Singh Ph.D.

Mo Eric Cui Ph.D.

Cathy Yea Won Sung Ph.D.

Kirupa Suthakar Ph.D.

Jessica MacLean M.M.,MT-BC

Matsya Thulasiram B.Sc.

Courtney Austin B.S.

Stella Yang B.S.

Rafael da Costa Monsanto M.D.,Ph.D.

Charles Morgan B.A.

Douglas Bennion M.D., Ph.D.

Samantha Stiepan Ph.D.,Au.D.

Jithin Balan Ph.D.

Tyler Kramer B.S.

Yoani Herrera B.S.

Elisa Ajay BEng/BBiomedSc

Keerthi Doreswamy M.Sc.

Lavinia Sheets Ph.D.- Faculty Advisor

# JOURNAL OF THE ASSOCIATION FOR RESEARCH IN OTOLARYNGOLOGY (JARO)

#### **EDITOR-IN-CHIEF**

Christopher R. Cederroth

#### **EDITORIAL ASSISTANT**

Lori Kunath, B.S.

#### **ASSOCIATE EDITORS**

Michael Akeroyd Victoria M Bajo Dwight E. Bergles Alan Brichta R. Michael Burger Catherine Carr Monita Chatterjee Alan Cheng Benjamin T Crane **Sharon Curhan Gary Curhan Sharon Curhan** Alain Dabdoub Paul Delano Mark Eckert Andreas H. Eckhard Ana Belén Elgoyhen Jutta Engel Douglas Fitzpatrick W. Robert J. Funnell

Silvano Gallus Jaime Garcia-Anoveros Anne-Lise Giraud Nace Golding Michael Heinz Stefan Heller Ronna Hertzano Hiroshi Hibino Keiko Hirose Fatima Husain Sung Huhn Kim Conny Kopp-Scheinpflug François Lallemend Berthold Langguth **Amanda Lauer** Jose A. Lopez-Escamez Enrique A. Lopez-Poveda **Brigitte Malgrange** Colette McKay Martin Meyer

#### **ASSOCIATE EDITORS**

John C. Middlebrooks Arturo Moleti Heidi Nakajima Patrick K.A. Neff Fumiaki Nin **Adrian Rees** Ling A.J. Reiss Marta Roccio Mark A. Rutherford William Sedley Su-Hua Sha Joseph Sollini George Spirou Karen P Steel **Christof Stieger** Nicola Strenzke Marcel van der Heijden Barbara Vona Joseph Walton Nathan Weisz Robert H. Withnell



## **ARO Past Presidents**

1974	David Hilding, M.D.*	2001	Judy R. Dubno, Ph.D.
1975	Jack Vernon, Ph.D.*	2002	Richard T. Miyamoto, M.D.
1976	Robert Butler, Ph.D.	2003	Donata Oertel, Ph.D.*
1977	David Lim, M.D.*	2004	Edwin M. Monsell, M.D., Ph.D.
1978	Vincente Honrubia, M.D.	2005	William E. Brownell, Ph.D.
1979	F. Owen Black, M.D.*	2006	Lloyd B. Minor, M.D.
1980	F. Owen Black, M.D.*	2007	Robert V. Shannon, Ph.D.
1981	Barbara Bohne, Ph.D.*	2008	P. Ashley Wackym, M.D.
1982	Robert Mathog, M.D.*	2009	Paul A. Fuchs, Ph.D.
1983	Josef Miller, Ph.D.*	2010	Steven D. Rauch, M.D.
1984	Maxwell Abramson, M.D. *	2011	Karen B. Avraham, Ph.D.
1985	William Stebbins, Ph.D.*	2012	Debara L. Tucci, M.D.
1986	Robert Ruben, M.D.	2013	John C. Middlebrooks, Ph.D.
1987	Donald Nielsen, Ph.D.	2014	Jay T. Rubinstein, M.D., Ph.D.
1988	George Gates, M.D.	2015	Ruth Anne Eatock, Ph.D.
1989	William Yost, Ph.D.	2016	Lawrence R. Lustig, M.D.
1990	Joseph Nadol, Jr., M.D.	2017	Matthew W. Kelley, Ph.D.
1991	Ilsa Schwartz, Ph.D.	2018	John Carey, M.D.
1992	Jeffrey Harris, M.D., Ph.D.	2019	Karen Steel, Ph.D.
1993	Peter Dallos, Ph.D.	2020	Keiko Hirose, M.D.
1994	Robert Dobie, M.D.*	2021	Ruth Litovsky, Ph.D.
1995	Allen Ryan, Ph.D.	2022	John Oghalai, M.D.
1996	Bruce Gantz, M.D.	2023	Elizabeth Olson, Ph.D.
1997	Charlie Liberman, Ph.D.		
1998	Leonard Rybak, M.D.	* Deceased	
1999	Edwin W Rubel, Ph.D.		
2000	Richard A. Chole, M.D., Ph.I	D	

# THANK YOU TO OUR SPONSORS AND EXHIBITORS!

## **AKGUOS**

















Shenzhen Giant (Ju' An) Technologies Co., Ltd

# THANK YOU TO OUR SPONSORS AND EXHIBITORS!





# RN I:D











syGlass









- The Grants Discovery Grants
  - Up to 8 awards, \$50,000 each
  - Grant period: Jan-Dec 2025
  - Special consideration for research on Meniere's disease or Causes of Sudden Hearing loss
- Discretionary Grants
  - By AHRF invitation, may be offered to select Discovery Grant applicants
  - Birtman Grant up to \$75,000
  - Richard G. Muench Chairman's Grant up to \$65,000
- Otolaryngology Resident Grants
  - Up to 5 awards, \$1,000 each
  - Grant period January 2025-July 2026
  - For residents at Chicago universities, Washington U of St. Louis, U of Miami, and

- Funding available for research related to hearing, or hearing and balance disorders of the inner ear
- Basic or clinical studies accepted
- Deadline: August 15, 2024
- Notification: late November 2024
- Funds dispersed: January 2025

For more information, visit www.american-hearing.org

Or contact us at info@american-hearing.org











#### **Auditory And Vestibular Function Analysis Products**

#### Booth #2

- Mouse
  - aVOR & OVAR
  - Four-ch. ABR+DPOAE
  - +Noise exposure
  - Acoustic startle response (Gap detection)



- Vestibular(VOR)
- Opto-Kinetic Reflex
- Acoustic startle response

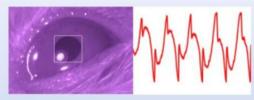
E-mail:dumeide@gianttek.cn Website: www. gianttek. cn

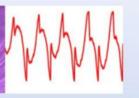


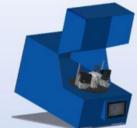
Tweeter 50 kHz

60 dB

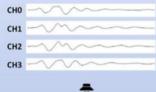
Sound-isolation Chamber







aVOR



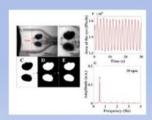


**OVAR** 

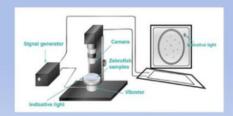


**Open-field ABR** 

**DPOAE & Closed-field ABR** 



**Zebrafish VOR** 



**Zebrafish Startle Response** 



ARO 2025 MIDWINTER MEETING

FEBRUARY 22-26, 2025

> Renaissance Orlando at SeaWorld

