



# 2022 A R O

# PROGRAM BOOK

# FEBRUARY 5-9, 2022 VIRTUAL CONFERENCE

WWW.ARO.ORG





# 2022- 2022 ARO COUNCIL

## **Officers:**



**President** (2022-2022) John Oghalai, M.D.



Past- President (President: 2020-2022) Ruth Litovsky, Ph.D.



President-Elect (2022-2022) Elizabeth Olson, Ph.D.



Secretary/Treasurer (2020-2023) Barbara Shinn-Cunningham, Ph.D.

### **Council Members:**



Nominations Committee Chair (President: 2019-2020) Keiko Hirose, M.D.



MidWinter Meeting Program Chair (2020-2023) Matthew Kelley, Ph.D. 1



# 2022- 2022 ARO COUNCIL

### **Council Members:**



Council Member (2019-2022) Lisa Cunningham, Ph.D.



**Communications Officer** (2022-2024) Barbara Canlon, Ph.D.



Council Member (2020-2023) John Brigande, Ph.D.



**Council Member** (2022-2024) Manuel Malmierca, Prof. Dr.



Welcome to the ARO 2022 Virtual Meeting!

These past few months have been challenging for everyone, and we hope that you are all safe and healthy amid the COVID-19 pandemic. The ARO Council made the very difficult decision to move the 2022 MidWinter Meeting to a completely virtual platform. ARO is very happy that you are joining us for the 45th Annual MidWinter Meeting!

Since 1973, a major focus of the ARO's activities has been to convene an annual MidWinter Meeting. This event serves as a forum to bring together basic scientists and clinical investigators from industry, academia, and government.

This year brought 1186 abstract submissions, resulting in nearly 222 oral presentations and 874 posters. Dr. Matt Kelley, who served as ARO President in the past, continues to provide leadership for ARO as the Chair of the Program Committee. Dr. Matt Kelley, Dr. Steve Lomber and the members of the Program Committee have organized a fantastic meeting!

The Presidential Symposium this year will be focused on mentoring and how best to interact with mentees. I will be joined by Drs. Barbara Oakley, Daniel Levitin, Joseph Kerschner, Lloyd Minor and Chris Manning during the presentation portion of the symposium. The latter half will consist of a panel of experts discussing intentional mentoring. The panel will be led by Drs. Linda von Hoene and Sabrina Soracco and consist of Drs. Christopher Shera, Anthony Ricci, Karina Cramer, Paul Fuchs, Ruth Litovsky, and Monita Chatterjee. I hope that you will find this work interesting, and another important element of our work in the field.

This year, Dr. Christoph Schreiner, will receive the Award of Merit, the highest commendation in our society. We look forward to hearing his talk at the Award of Merit session. We will also present Dr. Emma Holmes, the Geraldine Dietz Fox Young Investigator Award recipient, at this evening event.

Young Investigators, spARO and ARO have 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 NIDCD, will hold a Town Hall meeting on Sunday evening in conjunction with the ARO Business Meeting. At the conclusion of the business meeting, I will hand the gavel to our President-Elect, Dr. Elizabeth Olson, and thank retiring Past-President, Dr. Ruth Litovsky, who has tirelessly led this organization through the first year of the pandemic and has been invaluable to me in my role as President.

An exciting project for ARO is going to begin after the MidWinter Meeting ends. ARO will be creating video histories of ARO. These videos will include interviews with some of AROs Senior members and will recount some of the earlier years of ARO. We will then take these videos and create a written history of ARO to be shared on our website along with the interviews. Others in ARO leadership and I are greatly looking forward to this project commencing as ARO has such a rich history!

I would like to thank all members of ARO Council and the ARO committees who during the pandemic has spent countless hours ensuring the future success of ARO. I would also like to extend my thanks to all of you who have contributed your science to the program: the quality of your work and your willingness to share it with us is what makes ARO truly special.



Many thanks,

John Oghalai, M.D. President ARO 2022-2022



## **2022 MIDWINTER MEETING**



#### **Closed Captioning**

ARO is providing live captioning in all its sessions and recordings. Closed Captioning will be available at the bottom of your screen. Zoom also provides AI-powered live transcription that needs to be enabled by the viewer by clicking the CC button and enabling auto transcription.



#### **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*. Sessions that are being recorded by ARO will be available to registered attendees after the conclusion of the MidWinter Meeting for 14 days of additional viewing.



#### Breaks

Breaks have been added to the meeting agenda in hopes of limiting fatigue. Please take breaks as needed.



#### A Special Note for the Disabled

ARO wishes to take steps that are required to ensure that no individual with a disability is excluded, denied services, segregated, or otherwise treated differently than other individuals because of the absence of auxiliary aids and services.

If you need any auxiliary aids or services identified in the American with Disabilities Act, or any assistance in registering for this course please contact ARO Meetings Department at <u>headquarters@aro.org</u>; via telephone at 615-432-0100.



## **2022 ARO PROGRAM COMMITTEE**

#### **PROGRAM CHAIR:**

Matt Kelley, Ph.D. (3/19 – 2/22)

#### SCIENTIFIC PROGRAM CO-CHAIR:

Steve Lomber (2/20-3/23)

#### **MEMBERS:**

Zubair Ahmed, Ph.D. (3/20-2/23) Carey Balaban Ph.D. (3/20-2/23) Olivia Bermingham-McDonogh, Ph.D. (3/21 - 2/24)Brandon Cox, Ph.D. (3/19 – 2/22) Hela Azaiez, Ph.D. (3/21 – 2/24) Karen Banai, Ph.D. (3/21 – 2/24) Karen Gordon, Ph.D. (3/20-2/23) Shuman He, M.D., Ph.D. (3/20-2/23) Fatima Husain Ph.D., (3/20-2/23) Antje Ihlefeld, Ph.D. (3/20-2/23) Stephane Maison, Ph.D. (3/20-2/23) Manuel Malmierca, M.D. (3/20-2/23) Rob Raphael, Ph.D. (3/21 – 3/24) Tony Ricci, Ph.D. (3/21 – 2/24) Sunil Puria, Ph.D. (3/19 – 2/22) Maria Rubio, M.D., Ph.D. (3/19 – 2/22) Shinichi Someya, M.D. (3/20-2/23) Dan Tollin, Ph.D. (3/20-2/23) Matt Winn, Ph.D. (3/19 – 2/22) Council Liaison: John Oghalai, M.D. (3/20-2/23) spARO Representative: George Ordiway, B.S.





#### VIRTUAL CONFERENCE HALL

Login to the Conference Hall to browse through Exhibitors, the Poster Gallery, and Sessions being offered at this year's conference. You can also chat one on one with other attendees through the virtual chat feature or stop by the Meeting Networking room to chat face to face with other attendees.



#### 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 @AROMWM





And do not forget to use the hashtag **#ARO2022** if you post pictures or comments about the 2022 Meeting.



#### QUESTIONS

If you have questions before or during the conference, we encourage you to:

- 1) Email <u>headquarters@aro.org</u> with additional questions or concerns.
- 2) Stop by the Help Desk, open daily.



### **PRESIDENTIAL SYMPOSIA SPEAKERS**

# Presidential Symposium: Mentoring and Training Scientists: What Works?

SATURDAY, FEBRUARY 5, 2022 7 AM - 9:50 AM PT

CHAIR: John Oghalai, M.D. University of Southern California SPEAKERS: Barbara Oakley, Ph.D. Oakland University Virtual: Learning How to Learn: Powerful Mental Tools to Help You Master Tough Subjects

**Daniel Levitin, Ph.D.** *Minerva University Mentoring Graduate Students: Tales From the Trenches and New Evidence From Neuroplasticity Across the Lifespan* 

Joseph Kerschner, M.D. Medical College of Wisconsin Funds Flow To Support The Education Mission: A Dean's Perspective

**Lloyd Minor, M.D.** Stanford University School of Medicine Mentoring the Budding Physician Scientist

**Chris Manning, Ph.D.** University of Southern California Recruiting and Mentoring Diverse Trainees



### **PRESIDENTIAL SYMPOSIA PANELISTS**

Panel: Intentional Mentoring Panel SATURDAY, FEBRUARY 5, 2022 9:50 AM – 11:00 AM PT

DISCUSSION LEADERS: Linda von Hoene, Ph.D. University of California, Berkeley

Sabrina Soracco, Ph.D. University of California, Berkeley PANELISTS:. Christopher Shera, Ph.D. University of Southern California

Anthony Ricci, Ph.D. Stanford University

Karina Cramer, Ph.D. UC Irvine

**Paul Fuchs, Ph.D.** Johns Hopkins University of Medicine

**Ruth Litovsky, Ph.D.** University of Wisconsin

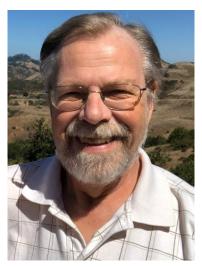
Monita Chatterjee, Ph.D. Boys Town National Research Hospital

**Session Abstract:** In this panel, training directors will address the intentional steps they have taken to develop a successful mentoring program for their trainees. In addition to helping us understand what constitutes good mentoring, they will also discuss the important role that mentees play in contributing to the success of the mentoring relationship and the qualities and behaviors of effective mentees.



# **2022 AWARD OF MERIT**

#### **AWARD OF MERIT**



## Christoph Eberhard Schreiner, Ph.D, M.D.

Professor, University of California, San Francisco

Christoph Eberhard Schreiner grew up in a small village in the woods of Northern Germany where his father practiced medicine. Living in a forest and with frequent outings accompanying his father and brother to observe wildlife at dusk and dawn instilled in him a life-long love of nature. Unsurprisingly, Christoph's favorite subject in high school was biology, closely followed by math and physics. When it was time to select a professional field, however, the quantitative side won out and he started in 1969 to study physics at the University of Göttingen in Lower Saxony. Soon, he joined the Third Institute of Physics working under the tutelage of Prof. Manfred R. Schroeder, his first influential mentor. Prof. Schroeder worked on a wide range of topics, using innovative applications of mathematics to speech, hearing, and concert hall acoustics. There, Christoph learned rigorous quantitative methods and had his first encounter with the concept of modulation transfer functions. However, several projects in the Institute also had links to biology and he chose to write his Masters and Doctoral theses on the psychophysics of the interactions of non-simultaneously presented sounds. This period established his life-long fascination with the sense of hearing.

One basic truth quickly became obvious to him: psychophysical phenomena ultimately must be understood on the basis of the biophysics and physiology of the sensory system. To broaden his perspective on human physiology, Christoph enrolled in medical school right after attaining his Masters degree (Diplom) in 1974. Moreover, after finishing his physics Ph.D. in 1977, he joined the laboratory of Prof. Otto Creutzfeldt, at the Max-Plank-Institute (MPI) for Biophysical Chemistry in Göttingen, as his first post-doc to embark on actual physiological studies of the auditory system. Prof. Creutzfeldt, his second influential mentor, was a renowned visual neuroscientist, but wished to further develop the study of the auditory system in his Institute. Christoph learned from him the art of complex physiological experiments, and the value of utilizing different levels of analysis, from local, intracellular to cellular to more global, hierarchical levels of resolution. In addition, the Creutzfeldt group, that included the rising stars of Sakmann, Neher, and von der Malsburg, had frequent illustrious visitors (e.g., Eccles, Hubel, Katz) from the world of neuroscience who always provoked deep discussions in the group from neuromathematics to neurophilosophy. In this fertile atmosphere, Christoph wrote his Doctoral Thesis in Medicine about the interaction of non-simultaneously presented sounds in the auditory thalamus and cortex.



# **2022 AWARD OF MERIT**

After finishing medical school in 1980, Prof. Creutzfeldt suggested that Christoph accept a one-year postdoc in the auditory neurophysiology laboratory of Prof. Michael Merzenich at the University of California, San Francisco (UCSF), in preparation for taking charge of the Auditory Group at the MPI. This suggestion proved to be of great significance for Christoph's future life in many ways. First, the Merzenich group, at that time, was engaged in two developments of major impact: they were in the process of developing a multi-channel cochlear implant device and testing it with the first set of patients, achieving highly promising initial results. Second, Dr. Merzenich was establishing, in the somatosensory system, the essential role of experience and life circumstances on the functional and structural organization of cortical fields. Thus, Prof. Merzenich became his third influential mentor by emphasizing the need for careful mapping of target structures and exploiting the role of plasticity in understanding the mechanisms of auditory processing and perception. And last, but not least, while working in the Coleman Laboratory at UCSF during that year, he met his wife, Marcia, an audiologist and fellow auditory neuroscientist. After he returned to the MPI in Germany for a year or so, he decided to follow his heart and returned to the Coleman Laboratory at UCSF where he rose through the academic ranks over the next 35+ years.

By further developing and applying the principles instilled in him by his mentors, and in collaboration with many bright and talented students and postdocs, his work illuminated many key aspects of auditory cortical information processing and their subcortical origins. Major topics include the principles of information transfer and transformation from synaptic to spiking activity, from thalamus to cortex, and from single neurons to coordinated neuronal ensemble activity. A central aspect of many studies was the focus on stimuli with a complexity somewhere between simple sounds, like tones and noise burst, and natural sounds, like vocalizations, in the form of parametrically accessible temporal and spectral stimulus modulations. A number of studies established fundamental aspects of the expression and mechanisms of maturation and experience-driven plasticity in auditory cortex. This was further aided by congenial and inspiring collaborations with the neuroanatomist Prof. Jeffery Winer at UC Berkeley starting in the late nineties. That collaboration also resulted in two jointly conceived and edited books that summarized the basic structure and function of the mammalian Inferior Colliculus and Auditory Cortex.

Supported by the NIH for more than 30 years, he reciprocated by serving on numerous grant review panels, chairing the AUD study section, serving on the NIDCD Council, and representing NIDCD on the Multi-Council Work Group of the BRAIN initiative. He also served for many years on the Tinnitus Research Consortium, a privately funded effort to enhance research into the mechanisms of tinnitus, and as the chair of the scientific advisory board of the large German research cluster 'Hearing4All', a broad effort of basic, translational, and applied research to enhance rehabilitative audiology. Another rewarding activity in his profession that he enjoys is mentoring students, post-docs, and junior faculty in his own department, as well as in the neuroscience and bioengineering graduate programs at UCSF and UC Berkeley.

Aside from his professional work, Christoph enjoys world- and science history, antique books, classical music (and some jazz), piano-playing as well as exploring foreign lands. But spending as much time as possible with his wife, and daughter Christina, brings him the most joy.

# **ARO Award of Merit Past Winners**

- 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, ScD\*
- 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.

- 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.
- **2022** Tom Yin, Ph.D.
- \* Deceased



## **2022 MIDWINTER MEETING**

#### **Geraldine Dietz Fox Young Investigator Award**



#### Emma Holmes, Ph.D

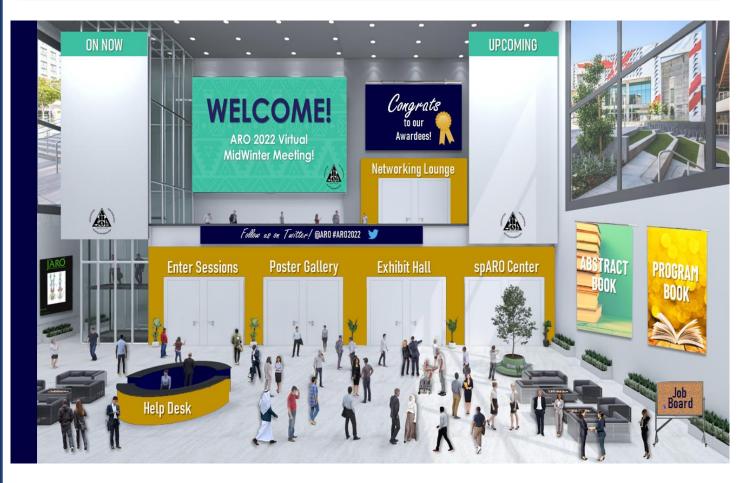
Dr. Emma Holmes is a Lecturer in Speech and Hearing Science at UCL and currently holds a Pauline Ashley Fellowship from RNID. Dr. Holmes completed an undergraduate degree in Experimental Psychology at the University of Oxford, a Ph.D. at the University of York, and postdoctoral training at the Brain and Mind Institute at the University of Western Ontario.

She continued her postdoctoral training at the Wellome Centre for Human Neuroimaging at UCL, and was appointed as a Lecturer in the Department of Speech Hearing and Phonetic Sciences at UCL in 2022.

Dr. Holmes' research focusses on how listeners perceive sounds in challenging listening environments and how this is affected by cognitive factors, such as attention and prior knowledge. Her work combines auditory psychophysics, cognitive neuroscience, and computational modelling.

# To join sessions log into the conference hall and click on the enter sessions icon or agenda icon.

We recommend using Google Chrome as your search engine.



From time-to-time we have to make updates in the conference hall and by so doing it may generate an error message on your end that could read, "Link unavailable," "Unable to access meeting" or something similar. If you are experiencing this issue, you can do a few things which we have noted below. You can also always pop into our Virtual Help Desk and we are more than happy to walk you through the process.

#### STEPS TO TAKE IF YOU RECEIVE AN ERROR MESSAGE

- 1. **Refresh your browser**—If you do a refresh in the top of your browser, it should update the platform and make sure everything is working properly.
- Close out the conference hall—If you have refreshed and you still receive the error, close out of the hall and reopen it. This should force the necessary updates. As a reminder, you need to be logged in to access the conference hall.
  a. Conference Hall: https://aro.societyconference.com/conference\_hall/
- 3. Allow Pop Ups on Your Computer—Your computer may be blocking the system from working properly. If you allow pop-ups for the meeting, it should provide a smoother experience for you. We discourage the use of internet explorer (IE) as the system doesn't run as smoothly in IE.



## **2022 MIDWINTER MEETING**

#### VIRTUAL MEETING

ARO is going virtual for the 2022 MidWinter Meeting!

Scientific sessions will run "live" during the regularly scheduled meeting dates of February 5-9, 2022.

Missed a pre-meeting session? Pre-meeting content has been recorded and will be available on the virtual platform.

Can't make a session at it's new time? Don't worry, all content, unless noted, will be recorded, and also made available on the platform 24-48 hours after the session occurs. Recordings will be available for viewing through February.

#### If you have questions before or during the conference, we encourage you to:

- 1) Use the Q&A feature to ask a question of the presenter or to contact AV support staff
- 2) Email <u>headquarters@aro.org</u> with additional questions or concerns. Calling the ARO Executive
- Office is not advised as the response time may be delayed during the conference.
- 3) Stop by the Help Desk or Speaker Ready Room, open daily.

#### **POSTER SESSION**

Attendees will be able to view e-posters online before, during and after the meeting. You may see which posters are being presented during each session via the agenda planner.

- All posters presenters will be e-poster only presenters
- There will be no designated poster times, but rather attendees will be encouraged to browse the eposter gallery during breaks.
- Just as was available last year, attendees will be able to leave comments and questions on your poster within the virtual platform and you will be able to answer them at any time.
- We are no longer having poster presenters upload a Google Meets room to your poster. We encourage you to engage via the chat feature and comment section on your poster within the platform. Should an attendee request a private meeting to discuss the poster, you are welcome to set that up on your own. Those interested in having a private meet up with the poster author will leave a comment on the poster within the virtual platform or privately chat the presenter within the virtual platform. These private meetings will be a schedule & meet at your own convenience. ARO encourages the use of Google Meets for these private meetings due to closed captioning being available.
- Also like last year, attendees will be able to private message you within the platform.
- These changes to the posters come from a desire to lessen any potential for Zoom fatigue and respect the time of our posters presenters.



# **Pre- Meeting Virtual Events**

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

Tuesday, January 11, 2022 11:00 AM - 1:00 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:

Charles Della Santina, M.D., Ph.D. Professor and Director, Johns Hopkins Cochlear Implant Center Department of Otolaryngology - Head and Neck Surgery Johns Hopkins University School of Medicine



Hitomi Sakano, M.D., Ph.D. Assistant Professor Departments of Otolaryngology and Neuroscience University of Rochester Medical Center

#### spARO moderator:

Alejandro Garcia, M.D. Research Fellow Department of Otolaryngology - Eaton Peabody Laboratories Mass Eye and Ear

#### Women and Allies Roundtable

Tuesday, January 11, 2022 1:30 PM - 3:30 PM ET

#### Session moderators:

- Dr. Becky Lewis Dr. Carolina Abdala Dr. Olivia Bermingham-McDonogh Dr. Virginia Best Dr. Naomi Bramhall Dr. Karen Gordon Dr. Fatima Husain
- Dr. Shuman He
- Dr. Melissa Polonenko Dr. Elizabeth Strickland Dr. Samira Anderson Dr. Ellen Peng Dr. Jessica Falcone Dr. Elyssa Monzack Dr. Tessa Jonne Ropp





# **Pre- Meeting Virtual Events**

**Mentoring Session: Publishing** 

Tuesday, January 11, 2022 4:00 PM - 6:00 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.

#### Speaker:

Andrew Groves, Ph.D Professor and Vivian L. Smith Endowed Chair in Neuroscience Departments of Neuroscience and Molecular and Human Genetics Baylor College of Medicine



Jennifer Stone, Ph.D Research Professor University of Washington, Virginia Merrill Bloedel Hearing Resource Center

#### spARO moderator:

Jarnail Singh, Ph.D, Staff Scientist Department of Pharmacology Southern Illinois University School of Medicine

#### Mentoring Session: Careers in Academia

Thursday, Jan 13, 2022 11:00 AM - 1:00 PM ET

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.

#### Speaker:

Don Caspary, Ph.D Research Professor Department of Pharmacology Southern Illinois University School of Medicine





Science Communication Workshop Thursday, January 13, 2022 1:30 PM - 3:30 PM ET

This workshop will help you design more effective conference presentations (both talks and posters). We will present strategies for ensuring your message is clear, guiding audience attention, designing good figures, how to field questions, and how to prepare for a variety of poster interactions. The workshop will also provide recommendations for presenting information in a way that is inclusive for those with hearing and/or vision loss. The workshop is open to scientists at all career stages, from trainees to senior scientists.

#### **Presenters:**

Matthew Winn, AuD, Ph.D. Associate Professor University of Minnesota

Kelsey L. Anbuhl, Ph.D. Postdoctoral Fellow New York University



#### Mentoring Session: Research and Teaching with Undergraduates

Thursday, January 13, 2022 4:00 PM - 6:00 PM ET

Teaching and researching with undergraduates provide unique and rewarding opportunities and challenges when working towards impactful research. In this session, two leading scientists will share and discuss their experiences working and publishing with undergraduates. Group participation is welcome and encouraged.

#### **Speakers:**

Josef Trapani, Ph.D Associate Professor and Chair Department of Biology Amherst College

Jeremy Duncan, Ph.D Assistant Professor Department of Biological Sciences Western Michigan University

#### spARO moderator:

Audrey Drotos, B.A. Neuroscience Graduate Program University of Michigan Dept. of Otolaryngology





#### **TUESDAY, FEBRUARY 01**

Behind the Scenes with Publication Tue 10:30 AM - 1:30 PM

#### **FRIDAY, FEBRUARY 04**

**Travel Awardee Celebration** 

Fri 9 AM - 11 AM **Speaker:** Susan Shore, Ph.D. *Professor University of Michigan* 

**Poster Blitz Competition** 

Fri 11:30 AM - 1 PM

#### **SATURDAY, FEBRUARY 05**

Diversity and Minority Affairs Round Table Workshop: "Dynamics of Power, Privilege and Oppressions and their Impacts on Individual and Communities" Sat 2 PM - 4 PM

#### **MONDAY, FEBRUARY 07**

ARO Business Meeting Mon 6:15 AM - 6:45 AM

Award of Merit Lecture Mon 9:15 AM - 10:45 AM



#### WEDNESDAY, FEBRUARY 09

**Glenis Long Memorial Symposium: Linking Acoustics, Psychoacoustics, and Otoacoustic Emissions** Wed 12 PM - 2 PM

#### FRIDAY, FEBRUARY 11

**gEAR Basics** Fri 8 AM - 9:30 AM

Join us to learn more about the gene expression analysis resource (umgear.org) - a one-stop-shop for visualization, analysis and sharing of multi-omic data from the ear field. This 90 min workshop will begin with a 45 min demo, followed by 45 min hands-on practice of your skills of choice. We will have several gEAR support staff to assist you through the hands-on portion of the workshop. The workshop will cover: account creation, single gene searches, multi-gene searches (new!!), profile concepts, using the new dataset explorer, analyzing gene expression using the comparison tool, building and using gene carts, an introduction to the single cell workbench, and user-based questions.

#### Workshop - Translational Delivery Approaches for Inner Ear Therapies

Fri 8 AM - 10 AM

#### gEAR Advanced

Fri 11 AM - 12:30 PM

Join us to become a gEAR (umgear.org) power-user! Whether you just learned about the gEAR in the first workshop or have been a long-time user of the gEAR - this workshop could be right for you. This 90 min workshop will begin with a 45 min demo, followed by 45 min hands-on practice of your skills of choice. The workshop will cover: uploading data to gEAR, curating dataset displays both for single gene and multi-gene analyses, changing dataset displays, using the gEAR to visualize epigenetic data and using the gEAR to visualize spatial transcriptomics (new!!).



#### WEDNESDAY, FEBRUARY 16

#### spARO Town Hall

Wed 6:30 AM - 7:30 AM

Join spARO for the town hall for an introduction to the spARO steering committee, the initiatives they run yearround, available positions in the upcoming year, and to hear more about how you can get involved!

#### spARO Mentoring Session: Careers in Industry

Wed 7:30 AM - 9:30 AM

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:

W. Owen Brimijoin, Ph.D & Jeff Lichtenhan, Ph.D.

#### spARO Mentoring Session: Mentor-Mentee Communication

Wed 10 AM - 12 PM

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:

Tejbeer Kaur, Ph.D & Michael Bowl, Ph.D

#### NIDCD Workshop: SBIR/STTR

Wed 12 PM - 2 PM

#### NIDCD Workshop: New Investigator/Early Stage Investigator

Wed 3 PM - 5 PM



#### **THURSDAY, FEBRUARY 17**

#### spARO Mentoring Session: Navigating the Grant Landscape

Thu 8 AM - 10 AM

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 be an interactive forum with questions and discussion.

Speakers:

Anthony Peng, Ph.D & Angelika Doetzlhofer, Ph.D

#### spARO Mentoring Session: Job Search and Independence in Academia

Thu 11 AM - 1 PM

Becoming an independent scientist largely depends on acquired competencies and achievements from your postdoctoral training. With so few openings for tenure-track faculty positions, competition is fierce. How do you become a competitive candidate? In this session, the panelists will discuss key aspects of building a competitive postdoctoral portfolio and preparing an effective academic job application. The mentors will discuss the academic job search timeline, resources for finding academic jobs, effectively compiling your application package, and the interview process. In addition, evaluating a job offer's benefits, salary, tenure track, and other deliberations are challenging, and important aspects of the job search process considered in this session, which will consist of a short presentation from a panel of leading scientists in an interactive forum for questions and discussion.

#### Speakers:

Ksenia Gnedeva, Ph.D & Bradley Walters, Ph.D

#### spARO/mentorship program social

Thu 1:30 PM - 3:30 PM

#### **FRIDAY, FEBRUARY 18**

Open gEAR Q&A

Fri 8 AM - 9:30 AM

Do you have questions about how to use the gEAR? Upload your data? You have tried to use a feature but would like to get more personal assistance? We will have our gEAR instructors available to answer questions and guide users as necessary in a common as well as private breakout rooms.



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Simply drop your "Virtual Business Card" in the booths of all participating exhibitors, then, as your last stop, visit the ARO booth and share your favorite 2022 conference experience in the Discussion Forum.

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Hearing Health Foundation is proud and privileged to be the largest private nonprofit funder of hearing and balance research in the United States. Each year Hearing Health Foundation funds innovative proposals and emerging lines of inquiry to advance our understanding of hearing loss and related problems, generate new approaches in clinical diagnoses and treatments, and support professional advancement, especially for early career researchers.

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Learn more at **hhf.org/keeplistening** or scan the QR code.







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## To Apply

- Funding available for research related to hearing, or hearing and balance disorders of the inner ear
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For more information, visit: https://www.american-hearing.org/ research-grants/grants-we-offer

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# **AKGUOS**

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Podium Session #11 Tailoring Regulatory Elements in Gene Therapies for Hearing Loss

Sunday, February 6th 12:45-1:00 pm PST Danielle R. Lenz, Ph.D.

Podium Session #11

Demonstration of Secreted Protein Expression Levels Following Intracochlear Delivery of AK-antiVEGF (AAVAnc80-antiVEGF Vector) Across Multiple Doses in Non-Human Primates Sunday, February 6th 1:00-1:15 pm PST Michelle D. Valero, Ph.D.

Poster #574 In Vitro Characterization of Gene Silencing Methods with the Potential to Treat Autosomal Dominant Hearing Loss Katherine D. Gribble, Ph.D.

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