REPORT ON THE 45th AMERICAN AUDITORY SOCIETY SCIENTIFIC AND TECHNOLOGY MEETING, 1–3 MARCH 2018, SCOTTSDALE, ARIZONA, USA

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The American Auditory Society (AAS) meetings are a great opportunity to learn about the latest developments in science, technology, and clinical practice in the field of audiology. At this year's meeting there were 45 oral presentations, 175 posters, and 9 technology updates. There were nearly 500 registered attendees. Every year AAS grants a Life Achievement Award, and this year's recipient was Glenis Long, who has made a substantial impact on the study of otoacoustic emissions. The Ear and Hearing Editors' Award for the best paper went to Martin Pienkowski for a review paper entitled "On the etiology of listening difficulties in noise despite clinically normal audiograms"[1].

Keeping with tradition, the conference began with a session devoted to technology updates, during which manufacturers had the opportunity to present the latest developments in equipment used in audiological clinical practice and research. Presentations dealt with, among others, remote adjustment of hearing aids, methods of compressing sounds in hearing aids, new types of batteries for hearing aids, and improved methods of measuring auditory steady-state responses (ASSRs) – a topic, presented by Yvonne Sininger, which was especially interesting. ASSRs were once seen as a promising objective test of hearing, but research subsequently showed that ASSRs could produce 30–60 dB HL thresholds in normally hearing subjects. Such a large deviation is much higher than in the comparable method of auditory brainstem responses (ABRs). However, using so-called CE-chirp stimuli (the "next generation ASSRs" based on the research of Claus Elberling) can produce results which differ by only 1 dB from ABRs [2]. In addition, the acquisition time is much shorter than with ABRs (10–20 mins).

The main lecture (commemorating Raymond Carhart) was given by Harvey Dillon from Australia. The lecture was devoted to (central) auditory processing disorders (APDs). His lecture was titled "Perspectives on the diagnosis and remedy of auditory processing disorders" and the presentation brought together the research conducted by Dillon over recent years. Some of the important topics raised were the problem of defining APDs and the development of reliable tests for them. One of the most frequently cited scientists was Frank Musiek, one of the pioneers of APDs.

Other invited lectures concerned the epigenetics of the auditory system (Karen B. Avraham), studies of a new generation of auditory brainstem implants (Daniel J. Lee), and the perception of emotions in speech by people with hearing loss and auditory implants (Monita Chatterjee). During the conference, there was also a special session dedicated to neuroplasticity during which lectures were given by Daniel Polley, Dan H. Sanes, and Larry E. Roberts.

The Young Investigator Research Presentation was given by Daniel Rasetshwane. It was devoted to hidden hearing loss – a prominent topic in hearing science in recent years which relates to the problem of poor hearing (i.e. poor understanding of speech) despite having good audiometric results. Rasetshwane also talked about the path of a scientific career for a young researcher and gave advice based on his own experience.

At the end of the conference, the current president of AAS, Anil Lalwani, handed over duties to Robert Burkard, who was elected for a new term.

References

1. Pienkowski M. On the Etiology of Listening Difficulties in Noise Despite Clinically Normal Audiograms. Ear Hear. 2017 Mar/Apr;38(2):135-148. doi: 10.1097/AUD.0000000000000388.

2. Sininger YS, Hunter LL, Hayes D, Roush PA, Uhler KM. Evaluation of speed and accuracy of next-generation auditory steady state response and auditory brainstem response audiometry in children with normal hearing and hearing loss. Ear Hear, 2018 Nov/Dec; 39(6): 1207–23. doi: 10.1097/AUD.0000000000000580.