

36TH MIDWINTER MEETING OF THE ASSOCIATION FOR RESEARCH IN OTOLARYNGOLOGY

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This year is the 40th anniversary of the Association for Research in Otolaryngology (ARO), and from 16–20 of February the 36th meeting of the association was held at Baltimore. This year there were a record 1100 presentations.

ARO was founded in 1973 by David Hilding, Vicente Honrubia, David Lim, Harold Schuknecht, James Snow, Juergen Tonndorf, Max Abramson, Bobby Alford, and Merle Lawrence, with the first meeting in 1975. The 40th anniversary celebration was led by ARO president John Middlebrooks, with special awards given to distinguished ARO veterans who have participated in all meetings: David Lim, Bryan Pflugst, Ed Rubel, Robert Ruben, Allen Ryan, and Peter Santi. As an aid to reminiscing, a slideshow of photos from previous meetings was on display in the lobby on LCD screens.

The meeting opened with a session “Ears and brains at the cocktail party”, chaired by John Middlebrooks, in which recent research into our ability to hear and understand speech in difficult environments was described. Normally, humans can easily pick out a desired voice from a crowd and follow it, but this ability deteriorates when hearing impairment occurs and selective hearing is lost. The session presenters approached the topic from many directions. The main impact appears to be in the way the cortex encodes auditory objects. It was shown, for example, that selective attention modulates the EEG. The limitations of cochlear implants (CI), and future directions for their design, were also discussed and placed in the context of some animal studies. Experiments on rhesus monkeys show that their facial motions, particularly of the mouth, help both detect and discriminate voices in noisy situations.

Topics of this year’s symposia were:

- Biologically inspired mechanisms of parsing the acoustic scene,
- Optogenetics: studying hearing under a new light,
- News about tinnitus,
- Optical approaches for studying auditory processing,
- Insulin-like growth factor signaling,
- Prestin at 13: progress, problems, and prospects,
- Intercellular signaling during sensory system development,
- Noise-induced hearing loss: scientific advances,
- Supporting cells: lessons from studies of glia,
- The non-lemniscal auditory thalamus,
- Cognitive factors influencing speech understanding,
- Manganese enhanced MRI (MEMRI): advantages for functional imaging.

There were also symposia for young investigators, where important topics were presented in a way that could help beginners understand advanced fields. There were two



Foyer of the hotel in Baltimore where the meeting was held.

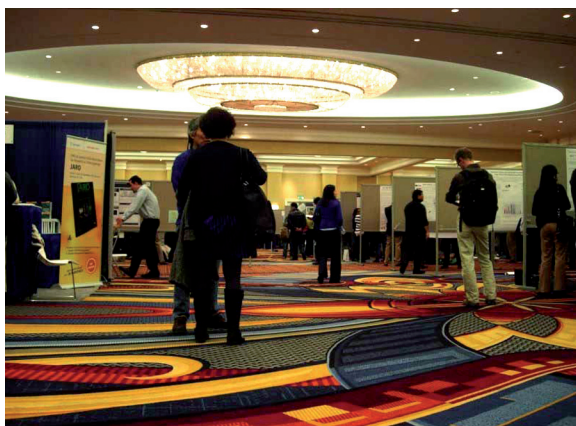


A view of Baltimore’s harbor area.

topics this year: Short and long-term neural plasticity in the auditory brainstem, and The neurophysiology of human auditory processing.

Other sessions included topics devoted to aging, genetics, psychophysics, hair cell transduction, auditory prostheses, drug delivery, and inner ear damage and its prevention. The conference was huge and it was impossible to follow all sessions since there were multiple parallel streams. The cochlear implant sessions were largely devoted to electroacoustic hearing and to atraumatic insertion of cochlear implant electrodes. There were studies on animal models as well as on human temporal bones.

There were also workshops on hyperacusis and on assessing tinnitus in animals. The latter workshop discussed techniques for evoking tinnitus in animals such as dosing them with salicylate and intense sound exposure. Techniques for assessment were discussed, such as startle reflex



As usual, posters were read with interest.

tests and conditioned avoidance tests. The difficulties of objectively assessing tinnitus in humans were also reviewed.

This year's award of merit was given to Karen P. Steel, a British scientist who has focused on the genetics of hearing. Her research has involved mainly mouse experiments and identification of genes related to deafness. She is the author of more than 100 papers, including the very influential one in *Nature*, "The nature of inherited deafness in deafness mice". After the ceremony she gave a special lecture, "What's the use of genetics?", in which she discussed recent findings of her group and her collaborators.



The National Katyń Memorial in front of the hotel at which the conference was held remembers those thousands of Polish prisoners of war who were executed in 1940 in the Katyń forest in Russia.

Although ARO is an American meeting, each year about 25% of participants come from overseas, and the organizers encourage them to join the society. Proposals of symposia for upcoming meetings are welcome.