

# REPORT ON XXII BIENNIAL SYMPOSIUM OF THE INTERNATIONAL EVOKED RESPONSE AUDIOMETRY STUDY GROUP (IERASG), MOSCOW, 26–30 JUNE, 2011

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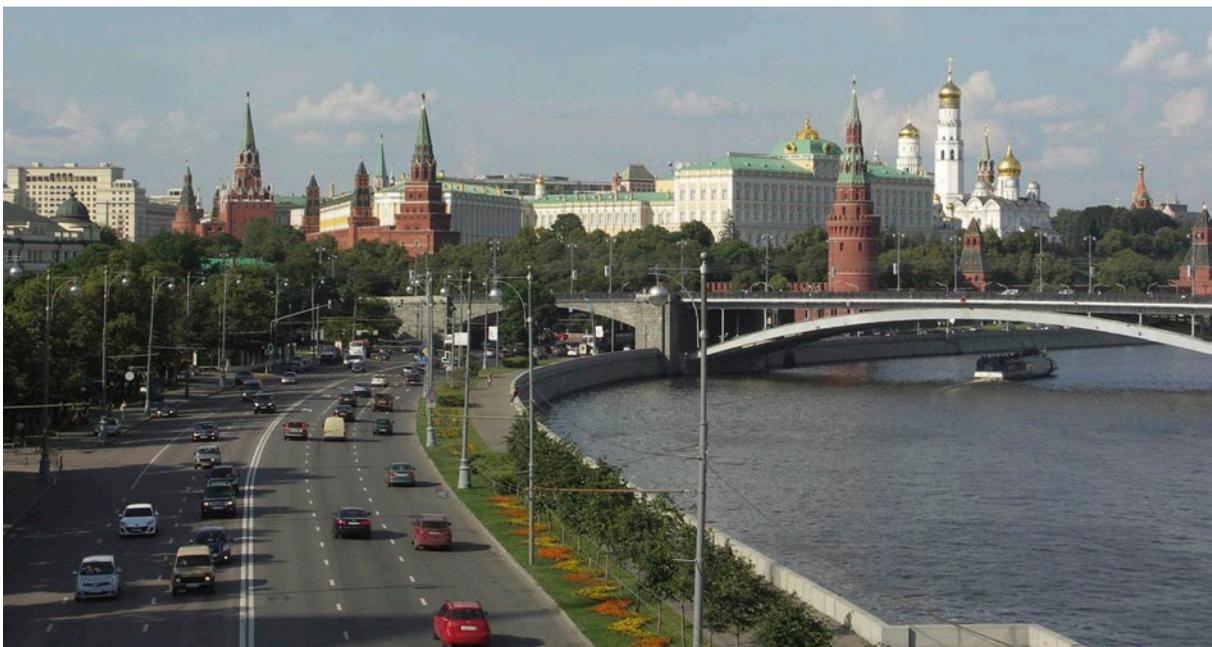
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The International Evoked Response Audiometry Study Group (IERASG) celebrates its 43<sup>rd</sup> anniversary this year. Although it is a relatively small scientific society, its contribution to the development of objective methods of hearing testing and the whole domain of clinical audiology cannot be overestimated. The society came into being during the International Congress of Audiology (ICA) in London in October 1968, initially as an informal club of researchers – the Electric Response Audiometry Club – created by Hallowell Davis, K. Burian and G. F. Gestring. The first International Meeting of the ERA Club was held in Freiburg, Germany, in April 1970, the second a year later in Vienna, Austria, and since then ERA symposia have been held regularly every two years. The ERA club soon grew into an international scientific society, the International Electric Response Audiometry Study Group (IERASG), which started publishing the ERA Newsletter. During the 14<sup>th</sup> ERA Symposium in Memphis in 1995, the name of the society was modified: the word *electric* was replaced with *evoked*, because of the development of other kinds of evoked responses, including acoustic ones. IERASG symposia always gather leading representatives of hearing science, and provide an excellent opportunity to learn about the latest trends and developments. Very often, scientists present the latest, unpublished reports, straight from the researcher's lab.

This year's 22<sup>nd</sup> IERASG Symposium took place in Moscow on 26–30 June. It was organized by the National Centre of Audiology and Rehabilitation in Moscow and the Russian Audiologic Society, whose president – Prof. George Tavartkiladze – was also the host and president of the symposium. The congress venue was the Radisson-Slavianskaya Congress Centre, located in beautiful surroundings by the Moskva River and near the city's historical centre.

The number of participants in IERASG symposia has never been high, but the importance of these rather exclusive meetings is the participation of high-level experts in audiology and hearing science. The meetings are designed to exchange experience and opinions and to discuss and confront ideas and hypotheses. Nonetheless, the international scientific community was well represented at this year's symposium. There were over 150 participants representing 26 countries from five continents. For the first time, scientists from Iran participated. Four researchers from the Institute of Physiology and Pathology of Hearing represented Poland, not counting several Poles from foreign research centres.

The four-day program traditionally comprises a cycle of invited lectures presented by outstanding scientists, free-paper and poster sessions, as well as round tables and



Surroundings of the congress venue: view over the Moskva River, Prechistsenskye Boulevard and the Kremlin.



Poster Session: Prof. Krzysztof Kochanek (Poland) and Prof. Monica Jubran Chapchap (Brasil), President of the previous IERASG Symposium.

a number of satellite symposia. The key event is always the Hallowell Davis lecture, commemorating the most distinguished creator of IERASG and one of the pioneers of electrophysiological audiology. The lecture is a comprehensive review of knowledge in a selected area of hearing research and is usually a summary of the life-time achievements of a leading researcher. This year, the lecture was entrusted to Prof. M. Charles Liberman from the Eaton Peabody Laboratories in Boston, USA. The lecture was devoted to primary degeneration of the auditory nerve and its evaluation by objective audiometry (ABR).

Among other lectures, a special one was by Prof. Roger Thornton, former long-time president of the IERASG Council. His subject was the transfer of knowledge from fundamental research, through clinical experiments, to daily medical practice. To exemplify it, Prof. Thornton described the revolutionary changes that have taken place over the last 30 years in clinical audiology and the treatment of hearing disorders, all starting with the experiments and theory of the founding members of IERASG: Hallowell Davis, David Kemp, Arnold Starr, and their successors. Prof. Thornton himself can be counted among these giants of contemporary audiology.

Of great theoretical and practical value was the lecture by Prof. James W. Hall III from the University of Florida, USA, who comprehensively outlined procedures for objectively testing the hearing of young children. Two lectures by Prof. Manuel Don from the House Ear Institute focused on new technologies for investigating auditory evoked responses, especially brainstem responses (ABRs) and their diagnostic possibilities (e.g. in diagnosing Ménière's disease).

Part of the meeting were satellite symposia, and this year two were organized by leading cochlear implant producers, Cochlear and Advanced Bionics. The state-of-the-art in implant technology was on display, recent improvements were described, and some interesting concepts for possible future applications were shown.

There were 51 oral and 23 paper presentations in the free papers sessions, similar to previous years, and subjects related to applications of 'classic' auditory evoked potentials, ABRs and the like. However, more attention is being given to cortical auditory evoked potentials (CAEP) and various aspects of diagnosing central auditory disorders. Some interesting papers were devoted to vestibular evoked myogenic potentials (VEMP) and their applications. After a period of stagnation, the subject of auditory steady-state responses (ASSR) seems to have come back and been revitalized. The application of ASSRs continues to broaden, and covers, among other things, diagnostics of hearing perception in cochlear implant users.

Otoacoustic emissions and their applications attracted slightly less attention. It did not mean, however, that the subject was less important – it still occupied a strong position on the agenda. Interesting papers on new methods of time-frequency analysis of OAE signals was presented by the team from the Institute of Physiology and Pathology of Hearing in Warsaw, and from the National Centre of Audiology and Rehabilitation in Moscow, who proposed a new approach to decomposition of the OAE signal by using neural networks and artificial intelligence methods.

A new aspect of this year's symposium was neuroimaging. Most work was aimed at the recognition of sources and investigating the properties of CAEP. Most interesting was work on imaging the neural processes associated with frequency discrimination of acoustic stimuli using simultaneous recording of functional magnetic resonance imaging (fMRI) signals and of CAEP. This study was brought together by a team from the Scientific Centre of Biomedical Imaging at the Institute of Physiology and Pathology of Hearing, Warsaw.

An emotional moment of the symposium was the presentation of honorary diplomas to three distinguished scientists, co-founders of the IERASG, and long-term members and officers of the IERASG Council. The laureates were Prof. José Juan Barajas de Pratt from Spain, Prof. Manuel Don from the USA, and Prof. Einar Laukli from Norway. Special congratulations and a standing ovation was given to Prof. Lionel Collet on the occasion of his being elected to the position of President of the Congress of University Rectors in France, and being decorated with the Legion of Honour.

The 23<sup>rd</sup> IERASG Symposium will be organized by Prof. Barbara Cone and her team in New Orleans and will take place on 9–13 June, 2013 (more about this event can be found on the IERASG web pages, [www.ierasg.ifps.org.pl](http://www.ierasg.ifps.org.pl)). Organization of the next one, in 2015, was entrusted to Prof. Lee-Suk Kim from Korea, who proposed Busan as the venue – a town offering modern facilities and interesting site-seeing. Poland was nominated as the place for the 2017 meeting, but a formal decision awaits New Orleans in 2013.