

OPENING OF THE WORLD HEARING CENTER AND AN ASSOCIATED INTERNATIONAL CONFERENCE, KAJETANY, POLAND, 11 MAY 2012

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The World Hearing Center (WHC) – a new unit of the Institute of Physiology and Pathology of Hearing (IPPH) – was opened on 10 May 2012. It was especially designed as a center for the complex care of people with congenital and acquired hearing, voice, speech, and balance disorders. The opening was accompanied by an international scientific conference. The program included 21 invited lectures by distinguished scientists from all over the world: Blake Wilson (Durham, USA), Rene Gifford (Nashville, USA), Ad Snik (Nijmegen, The Netherlands), Frans Coninx (Solingen, Germany), Herman Jenkins (Aurora, USA), Nuri Ozgirgin (Ankara, Turkey), Timoleon Terzis (Athens, Greece), David McPherson (Provo, USA), Stavros Hatzopoulos (Ferrara, Italy), Andrew Bell (Canberra, Australia), Norbert Dillier (Zurich, Switzerland), Andrzej Czyzewski (Gdansk, Poland), Agnieszka Szczepek (Berlin, Germany), Joseph Attias (Haifa, Israel), Antonio della Vopla (Naples, Italy), Sophia Kramer (Amsterdam, The Netherlands), Jose Padilla (Granada, Spain), Ewa Raglan (London, UK).

The conference was opened by Prof. Henryk Skarzynski who presented a lecture on partial deafness treatment (PDT) [1,2]. This topic was one of the fundamental issues that initiated the WHC project and made its development possible. In his

presentation Prof. Skarzynski described the evolution of surgical techniques for cochlear implantation and how it changed with new electrode designs. Pre- and post-operative results, as well as follow up results of PDT patients, were shown.

This was followed by a presentation on evaluating the relative benefits of cochlear implantation according to the level of residual hearing. In the absence of Prof. Blake Wilson, the text of the talk was given by Dr Artur Lorens. An interesting result was that patients with high levels of residual hearing (PDT-EC levels) receive at least as much benefit from cochlear implantation as patients with lower levels of residual hearing. Moreover, age over 60 is not a contraindication for treatment. This latter finding has major implications for presbycusis treatment.

Most presentations related to cochlear and middle ear implants. Other topics covered were tomography and imaging methods in audiology and rhinology, multimodal human-computer interfaces, and the effect of psychosocial stress on gene expression in the auditory system.

An interesting occasion was the presentation by Andrew Bell. The talk was given from Australia via an internet



The live presentation by Dr Andrew Bell from Australia.



Group photo of the participants of the scientific conference.



Prof. Henryk Skarzynski and Prof. David McPherson unveil honorary plaques.

connection. Despite the distance, the audience was surprised by the very high quality of the audio and video. The topic was an alternative view of the role of the middle ear muscles in protecting the inner ear [3]. Standard theory says that stiffening of the joints and ligaments reduces sound transmission; the new theory suggests that sound reduction is brought about by the muscles increasing the pressure in the fluids of the cochlea.

In addition, there was a poster session that displayed various aspects of international collaborations by researchers from IPPH. Topics included partial deafness treatment, application of fMRI in studies of the hearing system, auditory brainstem responses, otoacoustic emissions, telemedicine, and computer-based systems supporting diagnosis and patient care.

At an appropriate interlude, Prof. Skarzynski and Prof. David McPherson unveiled honorary plaques on the wall of WHC which document collaborations with visiting researchers.

References:

1. Skarzynski H, Lorens A, Piotrowska A, Skarzynski PH: Hearing preservation in partial deafness treatment. *Med Sci Monit*, 2010; 16(11): CR555–62
2. Skarzynski H: Ten years experience with a new strategy of Partial Deafness Treatment. *Journal of Hearing Science*, 2012; 2(2): RA11–18
3. Bell A: How do middle ear muscles protect the cochlea? Reconsideration of the intralabyrinthine pressure theory. *Journal of Hearing Science*, 2011; 1(2): RA9–23