Editorial

Cochlear implants have become the treatment of choice in functional hearing restoration for patients with profound and severe hearing loss. Due to recent advances in electrode design and surgical techniques, it is possible to reliably preserve residual cochlear function, even in patients with substantial residual hearing loss. The derived concept of hybrid stimulation combines the distinct advantages of both electrical stimulation in the high-frequency range with acoustic stimulation in the partially preserved low-frequency range of the cochlear. The number of patients benefitting from this strategy substantially expands the current indications for cochlear implantations.

In this special issue, selected and peer-reviewed papers given at the 2nd International Electro-Acoustic Workshop held in Hannover, Germany, in December 2007 are documented. More than 120 experts from all over the world used this forum to present and discuss recent advances in this exciting new field for treating inner ear hearing loss.

The papers in this issue cover aspects of electrode design, hearing conservation surgery, device fitting, hearing performance and long-term data. Special aspects of speech understanding in noise, music perceptions, factors related to hearing preservation and strategies for progressive hearing loss are covered. Special round tables focus on candidate selection, psychophysical research and surgical experiences.

The current volume compiles the currently available information and state of the art in hearing preservation, cochlear implantation and hybrid hearing. The current advances open new horizons for treating inner ear hearing loss using combined models of cochlear stimulation and preservation of function. This will definitely enlarge the number of patients that can benefit from this exciting new technology.

Thomas Lenarz, Guest Editor