Message from the Guest Editor

Signal is transmitted to the cochlea not only via air-conduction (AC) but also by vibrating the body, particularly mastoid. This conduction is referred as bone conduction (BC), and considered an important pathway in the patients with severe conduction hearing loss, such as aural atresia.

A novel hearing aids utilizing cartilage-conduction (CC) (vibrating aural cartilage for signal transmission) has been devised. This novel device improves the demerits of conventional BC hearing aids, and can be used without any surgical operation. Therefore, their use has quickly popular among the patients with aural atresia in Japan.

Recently, the medical use of this field is remarkable. Compared to AC, there are many things that remain unexplained. This special issue of BC and CC is an attempt to further our understating of sound transmission and develop its medical use. We especially encourage submissions concerning basic research on them and clinical devices utilizing these conductions.