The Human External Ear

If the advancement of knowledge is, in any way, an index of the growth of a profession, it is quite clear that the profession of audiology has made major advances in the past decade. This special issue on the human external ear is a prime example. Ten years ago, it would have been unthinkable to devote the entire contents of a journal to the topic of the human external ear. After all, the earcanal is a mere 1¼ inches in length in the human adult, is a passive receptor of sound, and its function was thought to be simply to transmit acoustic energy from the environmental medium to the eardrum. What more is there? What more would anyone want to know about this simple anatomical aperture?

Today, the human external ear is recognized as a dynamic anatomical structure that is a critical part of audiology practice. The development of audiological procedures including immittance measures, electronystagmography, electrocochleography, real-ear probe microphone measures, and otosacoustic emission measures has made the external ear an important part of daily audiological practice. Today, audiologists regularly use insert earphones, place microphones and probes in earcanals, and manage cerumen. The earcanal is a routine part of audiological practice and it is the professional responsibility of audiologists to be intimately familiar with the anatomy, physiology, and pathophysiology of the human earcanal, as well as have a clear understanding of and clinical skills in earcanal management.

This special issue of the Journal of the American Academy of Audiology is devoted to the multifarious human external ear. The material covers a wide range of topics. The first four articles detail normal and abnormal structures of the external ear including: disorders of the external auditory canal, development of the human external ear, anatomy and orientation of the human external ear, and physiology, pathophysiology and anthropology/epidemiology of human earcanal secretions. The earcanal as an active processor of sound and external ear acoustics are topics of the fifth and sixth articles. In the remaining three articles the topics of cerumen management, tympanic membrane abnormalities as they relate to auditory function, and video otoscopy in audiological practice are covered.

As the editor of this issue, I want to thank Dr. Jerger for inviting me to prepare this material. The contributors must also be recognized for keeping on schedule and providing the excellent material in this issue. The added cost of the color material was supported by a grant from Med Rx, Inc. We thank Mr. Ronald Buck for his willingness to support this special issue.

Ross J. Roeser
Guest Editor

*The spelling “earcanal” is used throughout this special issue in an attempt to standardize it with other similar terms, including “eardrum,” “earring,” “earlobe,” “earphone,” “earache,” etc.*