What an excellent title for a surgical book! All developments that shape the field of otologic surgery found their inspiration in the goal to optimize the results by minimizing risks and complications. I like to look at an operation as a well-controlled clinical experiment. You carry out a surgical procedure in accordance with the best surgical principles and expect a certain outcome. Every temporal bone as well as its related pathology, however, is unique and can create challenges affecting the result. You should analyze the results of surgery with the same scientific objectivity used to evaluate experimental data and make any adjustments needed to improve the outcomes in future surgeries. This sounds obvious, but I have been surprised to find, even at a professorial level, surgeons stating that they do not have the time to collect and statistically analyze the results of their surgeries because they are too busy seeing patients. Dr. Wiet is one who does analyze his results.

This book covers the complete field of otology and neurotology from diagnosis to treatment, so that the interested reader can take advantage of the experience of (that is, the sum of errors observed by) well-known authorities in each of these fields.

The topics covered involve otology, neurotology, and skull base surgery. Some think that otology and skull base surgery are distinct clinical areas—the former being for otologic generalists; the latter for a few highly specialized otologists. After 40 years of experience in both areas, my view is different. Life is not only continuous change but also permanent interchange. The development of lateral skull base surgery initiated by William House in the early 1960s has dramatically transformed otology. In the pre-skull base surgery era, otology was a specialty confined to the middle ear. The facial nerve, the sigmoid sinus, and the dura of the middle and posterior cranial fossa were structures to be avoided during operations. Since that time, we have learned to skeletonize these structures and to use them as reliable landmarks; we have changed them from enemies to good friends. This change has transformed the otologist from a middle ear to a temporal bone surgeon. Because temporal bone surgery is the foundation of lateral skull base surgery, the conclusion is that, by definition, every modern otologist is a skull base surgeon.

The difference between radical mastoidectomy, subtotal petrosectomy, and transtotic and infratemporal fossa approaches is one of degree. Therefore, lateral skull base surgery has to become an integral part of otology, and every otologist should be trained with the necessary anatomical landmarks and technical knowledge to master the surgery.
of the temporal bone with all its complex structures. The otologist will then realize that radical removal of the pneumatic cell tracts in the mastoid and epitympanum does not differ from the work needed for a subtotal petrosectomy, and will be aware that even a partial mastoidectomy is work done within the skull base according to the same technical principles used for lateral skull base surgery. On the other hand, the delicate action required for ossiculoplasty and the various types of stapes surgery in otology are the best training for the micromanipulations needed to decompress, reconstruct, or separate the facial nerve from an acoustic neuroma.

Modern otologists should be aware of their responsibility as temporal bone surgeons to learn to perform a subtotal petrosectomy, a technique that is the basis of lateral skull base surgery and is indicated in a number of cases, for example, in cochlear implants. This broader concept of otology is the basis for the future success of otology, neurotology, and lateral skull base surgery.

I am sure that the younger readers of this book who agree with this interpretation of the field will use this book to great advantage in their clinical practice, and otology will thereby continue to be one of the most fascinating fields of microsurgery.

Ugo P. Fisch, M.D.
Zurich, Switzerland
Preface

In the past 50 years the advances in medicine, and in particular otology, neurotology, and skull base surgery, have been spectacular. These advances have largely been catalyzed by a better understanding of disease processes, improved preventive care, and the introduction of evidence-based medicine. But now, in the 21st century, the call for error reduction becomes far more important. Indeed, at the time of this writing the American Medical Association is spearheading a program called Pay for Performance initiated as a result of the National Quality Forum (NQF) organized by Congress.

The outcomes from the surgical management of disease have always been vitiated by complications. There is no doubt that increased regulatory and legal scrutiny has stimulated members of our profession to studiously consider the underlying pathology, the indications for surgery, and the expected unfavorable outcomes that are inevitable with any given surgical procedure. Consequently, the surgical complication rates are dropping. Nevertheless, complications still do occur. How we handle and study error is a mark of professionalism in medicine. The appropriate theater is morbidity and mortality rounds, where constructive dialogue takes place. These discussions provide analysis of complications, as well as remedies to prevent them in the future.

I have selected contributors based upon their area of known expertise and am grateful to each and every person who contributed to this work. Two individuals who have been remarkable in spurring me on to create a useful text are Arvind Kumar, M.D., and Harold Kim, M.D. Arvind, the consummate scholar, encouraged manuscripts that mirrored foundational scientific knowledge and requested editorial changes applicable for a wide audience. Harold contributed the section in appropriate chapters called Problems and Solutions, so the readership has a quick review of useful points from each author.

This book is laid out in seven sections with 30 chapters. It begins with basic and often overlooked issues and ends with futuristic methods that will shape new changes in the field of otology and neurotology. The work may appeal to a wide audience beyond otolaryngology, including nurses, nurse practitioners who work with otolaryngologists, residents, and even insurance professionals. But the book is particularly aimed at the young physician embarking into practice who is looking for a reference to a particular problem.
The goals of this work are to keep complications to a minimum and to achieve excellence of outcome. A compassionate physician, knowing that each time he or she operates, longs to avoid them. Yet this continues to be a part of our life, while difficult, that haunts each one of us. It is our hope the reader will find "pearls" within.

Richard J. Wiet, M.D., F.A.C.S.
Chicago, Illinois