

# Preface

One of the first systematic histological evaluations of the role of joint cartilage was published in 1843 by Ecker and was entitled “Ueber Abnuetzung und Zerstoerung des Gelenkknorpels” [1]. In 1942, Bennett et al. stated that degeneration of articular cartilage is the origin of osteoarthritis and that the degeneration is an inherent senescence of the cartilaginous tissue [2]. For many years, cartilage loss and degeneration were considered as inevitable, eventually leading to decrease in joint function, osteoarthritis, and immobility, with limited therapeutic options.

Cartilage degeneration has been identified as a major threat to our aging society with substantial implications for health care and as a major socio-economic burden. Hence today, there is tremendous activity in developing strategies and treatments to prevent cartilage “Abnuetzung” (loss). These include injury prevention programs, cartilage repair, as well as oral and local treatments. While these therapies are clearly in their infancy, their development requires sensitive and reliable cartilage imaging and quantification techniques; these are indispensable to monitor the effects of new therapies and prevention strategies. Thus *cartilage imaging* gains a major and central role in the management of degenerative joint disease.

*The goal of this book* was not simply to summarize currently available imaging techniques to assess cartilage, but also to provide clinical perspectives and an outlook on future developments. Major experts in this growing field contributed to this book, which is geared to radiologists, orthopedic surgeons, rheumatologists, and clinical and basic researchers. We believe that cartilage imaging and noninvasive quantification will be essential tools in preserving joint function and tackling the ever-increasing challenge of osteoarthritis in our society.

I would finally like to acknowledge our developmental editor Michael Griffin’s hard work and support during the preparation of this book.

San Francisco, CA, USA

Thomas M. Link, MD

## References

1. Ecker A. Ueber Abnuetzung und Zerstoerung der Gelenkknorpel. Arch Physiol Heilk. 1843;2:235–48.
2. Bennett G, Waine H, Bauer W. Changes in the knee joint at various ages. New York: Commonwealth Fund; 1942.

Cartilage Imaging  
Significance, Techniques, and New Developments  
Link, Th.M. (Ed.)  
2011, XI, 245 p., Hardcover  
ISBN: 978-1-4419-8437-1