Preface

During the past decade, we have seen tremendous advances and enthusiasm for hip joint preservation surgery. At present, approximately 60,000 cases of hip arthroscopy are performed per year in the United States with yearly growth rates of ~15% per year. Given the high prevalence of cam deformity in the population, it is possible that this growth will continue for the foreseeable future. Coincident with advances in our understanding of hip pathology and treatment methods are advances in hip MR imaging. Both morphologic and biochemical imaging of the hip has benefited greatly by the use of higher field magnets, improved coil design and sequences.

In many respects, both the clinical and imaging aspects of hip disorders are complementary and essential in order for further advances in each field. Biochemical imaging of cartilage has long languished in the laboratory for lack of clinical relevance. It is an ideal technique to assess the efficacy of osteoarthritis disease modifying treatment; however, to date no disease-modifying drug exists. On the clinical side, disease-modifying drug for osteoarthritis has tremendous potential; however, it has been very difficult to develop due to lack of an early marker of disease that is accepted by the regulatory agencies. It is a classic catch-22 situation.

Now with advances in hip preservation surgery, it may be possible to make progress in our understanding of how osteoarthritis develops as well as understand the role of advancing MR imaging in advancing knowledge and treatment of osteoarthritis. At this point in time, the surgical techniques of hip preservation surgery are maturing and early clinical results are promising in demonstrating efficacy in improving symptoms. Similar to the development of osteoarthritis disease modifying drugs, in order to demonstrate disease modification over a short period of time, the use of advanced imaging will be required. Fortunately, we feel imaging technologies are now available to make this possible.

This book is a current summary of both clinical and imaging knowledge relevant to understanding hip pathology. It is our hope that this book will be useful in the present, but more importantly may stimulate future advances.