

Preface

"...we simply do not know enough, we are still a largely ignorant profession, faced by an array of illnesses which we do not really understand, unable to do much beyond trying to make the right diagnosis, shoring things up whenever we can by one halfway technology or another..."

Lewis Thomas,

The Fragile Species, TOUCHSTONE, New York, 1992

Principles of Molecular Rheumatology has been organized to help Rheumatology Fellows, House Officers, and Rheumatologists better understand the molecular and cellular aspects of Rheumatic Diseases. The ambition of the editor and the authors is to present and discuss the pathogenesis of rheumatic diseases in a concise manner. We hope that *Principles of Molecular Rheumatology* will facilitate the introduction of clinical trainees to the science of Rheumatology and will serve as a helpful accessory in reviewing basic and clinical articles with reference to basic science issues. Furthermore, it is our intention to help those students of human disease who do not have a formal medical training gain an informed perspective on rheumatic diseases.

The first section of *Principles of Molecular Rheumatology* discusses the molecular mechanisms that are central to many rheumatic diseases. Established authors present the biochemical mechanisms by which apoptosis, cell signaling, complement, lipids, and viruses contribute to disease expression. The second section reviews immune and nonimmune cell function as it relates to rheumatic diseases. The function of lymphocytes, monocytes, neutrophils, synoviocytes, chondrocytes, and bone cells is discussed. The third section takes a synthetic approach to disease. The authors present integrated discussions of the cellular, biochemical, and molecular biological mechanisms that are directly important to disease pathogenesis. Major diseases are reviewed and concepts are formulated. In the final section, the molecular aspects of those therapeutics that are routinely used in rheumatic diseases are discussed. The emphasis on mechanisms rather than clinical pharmacology aims at familiarizing the reader with what is being accomplished at the molecular and cellular levels following the administration of each medication.

Principles of Molecular Rheumatology does not replace any of the classic textbooks in Rheumatology. Rather, it adopts a fresh perspective designed to enhance the understanding of Rheumatology by emphasizing the importance of knowledge of molecular and cellular pathophysiology to the mastery of rheumatic diseases.

I am grateful to the authors for many exciting discussions on the format and content of the book and for their enthusiasm and support, which provided me with the stamina to see the project to its completion. I learned so much from my interactions with my esteemed colleagues, authors of *Principles of Molecular Rheumatology*, that I do not seek reward. My only hope is that *Principles of Molecular Rheumatology* will help our fellow Rheumatologists better serve the patients who suffer from rheumatic diseases. The unwavering support of Paul Dolgert is once more appreciated. Craig Adams and Elyse O'Grady are responsible for all the good things in this book, whereas I am responsible for its shortcomings

George C. Tsokos, MD



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