

Preface

In the last 10 years, adipose tissue and adipokines—messenger proteins produced by adipocytes—have become the focus of extensive investigation as a result of the recognition of the health problems associated with the ever-expanding worldwide obesity problem that affects both children and adults. Numerous advances have been made since publication of the first edition of *Adipose Tissue and Adipokines in Health and Disease*, in terms of basic adipocyte biology, understanding of the determinants of obesity, distribution of body fat and weight loss, as well as the mechanisms linking excess adiposity to various comorbidities. The second edition of *Adipose Tissue and Adipokines in Health and Disease* appears 5 years after the initial volume of the Nutrition and Health series on the same topic. The aim of the current edition remains to provide comprehensive information regarding adipose tissue, its physiological functions and its role in disease, collecting in one place updated information spanning the range of adipose tissue studies, from basic adipocyte biology to epidemiology and clinical aspects.

The volume is divided in four parts: the first two deal with basic adipose tissue and adipokine biology, while the last two address the problem of obesity and alterations in adipose tissue function from an epidemiological and clinical standpoint.

The chapters that compose Part 1, *Adipose Tissue: Structure and Function*, provide an overview of the evolution and biology of adipose tissue and adipokines as well as a state-of-the-art discussion about different types and function of adipose tissue and its distribution in the body. Part 2, *Adipose Tissue Inflammation and Adipocyte Dysfunction in Obesity*, tackles the topic of mechanisms linking expansion of adipose mass to disease pathogenesis by way of inflammation, dysfunctional cellular responses as well as alterations in micronutrient metabolism. Part 3, *Obesity*, addresses epidemiological, genetic and epigenetic aspects of obesity as well as both positive and negative outcomes of rapid weight loss. Finally, the chapters collected under Part 4, *Adipose Tissue and Disease*, explain mechanisms by which obesity and adipose tissue dysfunction increase risk of various pathologies, from diabetes to cancer.

This volume is expected to serve as a useful resource not only for physicians interested in adipose tissue biology but also for basic scientists who want to know more about applied aspects of the field. The book specifically targets endocrinologists, residents and fellows, internists, nutritionists and general practitioners who are exposed to an ever-expanding obese population and need access to relevant, updated research results collected in one place.

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