

Preface

The adipokines (also called adipocytokines), are a group of peptides secreted by adipose tissue. They have diverse roles, from the cell to the whole body. For example they have endocrine, autocrine and paracrine functions and they can also influence both transcription and translation. They can be pro-inflammatory and affect virtually all tissue systems either directly or indirectly. Although it is well known that they modulate or influence insulin resistance, endothelial function, cardiovascular disease, diabetes and obesity, they also appear to target other tissues as well. Moreover, they have other properties which are too numerous to document in a single preface. Thus, to understand adipokines in relation to health and disease a comprehensive text is needed. However, many books in health related sciences are written for experts alone. In *Adipokines* we have attempted to make the text accessible to the novice and expert alike. Each chapter has sections on applications to other areas of health and disease, key facts and definitions or explanations of key terms, genes, chemicals or pathways.

In *Adipokines* the Editors have invited distinguished scholars to write chapters which together will provide readers with a holistic knowledge-base to enable them to understand adipokines in specific or broad details. Coverage on specific adipokines includes adiponectin, acylation stimulating protein (ASP), adipisin, adrenomedullin, angiotensinogen, apelin, C1q/TNF-related proteins (CTRP), fasting-induced adipose factor FIAF/Angiopoietin like protein 4, interleukins, leptin, omentin, plasminogen activator inhibitor-1 (PAI-1), resistin and retinol-Binding Protein 4, TNF- α , transforming growth factor, vaspin and visfatin. Other broad area of coverage includes adipokines in relation to thermal stress, neuroendocrine and autonomic function, obesity, nonalcoholic fatty liver disease, endocrine disruptors, the heart, rheumatic disease, allergy, sleep disorders, children and adolescents, immune cell development and innate immunity, hypocaloric diets, energy metabolism, deficiency, fibroblasts and chondrocytes, inflammation and seminal fluid and amniotic fluid.

There are 4 major sections as follows:

- [1] Specific adipokines
- [2] General cellular aspects
- [3] Diseases and conditions
- [4] Specific adipokines in disease

The book has a mixture of preclinical and clinical information and is designed for a broad scientific readership such as health scientists, doctors, physiologists, immunologists, biochemists, college and university teachers and lecturers, undergraduates and graduates. The chapters are written either by national or international experts or specialists in their field.

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