

Preface

Blood platelets attract growing interest among clinicians and basic scientists due to the increasing understanding of their role in diverse physiologic and pathologic phenomena and to the uninterrupted discovery of new functions.

The recent characterization of the protein biosynthetic activity of platelets, their complex RNA array, the genetic regulation of several of their functional activities, and their role in tissue repair and in inflammation have prompted a major reconsideration of the role of these cells. However, above all other aspects, it is the central role that platelets play in arterial thrombotic events which has been the object of great attention and of spectacular therapeutic advancements in the last few years.

It seemed thus timely to provide a comprehensive, detailed, and updated handbook for both clinicians and researchers on the basic and clinical aspects of drugs used to modulate platelet function and to review the wide range of anti-platelet drugs currently under development.

The book is divided into three parts, i.e. Pathophysiology, which provides all the basic knowledge on the structure and function of platelets and on their role in physiologic haemostasis and in atherothrombosis; Pharmacology, which discusses in detail the basic pharmacology of all the individual antiplatelet agents currently in use and all of the novel and future antiplatelet approaches; and Therapy, which examines systematically the current therapeutic indications for antiplatelet agents in the different clinical manifestations of ischaemic cardiovascular diseases.

Within these parts, 23 chapters cover extensively all the aspects of antiplatelet therapy, with a view on innovative aspects, like small interfering RNAs, signal transduction pathways as potential targets of antiplatelet therapy, or the pharmacologic modulation of the inflammatory activity of platelets.

A large group of leading experts in platelets and cardiovascular disorders, both clinicians and basic scientists, kindly accepted to contribute to this book thus providing the most updated and authoritative view on the state of the art in antiplatelet therapy. Particular care has been taken by the editors to ensure homogeneity and readability of the book and, to this end, each chapter reports a separate list of the main take-home messages and a table with the most significant

knowledge gaps on the subject. Simple figures and schematic diagrams help to provide an immediate and concise view on complex mechanisms and study results.

The book is intended to be a manual and a consultation textbook for all those who are interested in platelets, either for research purposes or for their daily clinical practice.

It is to be expected that blood platelets will continue to surprise us and that new therapeutic developments will take place in the next few years: this book intends to set the stage for the foreseeable future.

An insightful and entertaining foreword by Gustav V.R. Born, one of the fathers of the modern knowledge on platelets, opens the book. The enthusiastic contribution of 30 leading scientists, the editorial assistance of Springer Verlag, as well as the generous assistance of several co-workers at the Editor's institutions have made it possible to complete this ambitious project: we trust that it will be of help and interest to many readers worldwide.

The Editors

Antiplatelet Agents

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