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J. Willis Hurst

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Printed on acid-free paper.

To our students and colleagues
R.G., P.K.T

To my parents and my associates
G.D.

To my parents
M.M.K

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Pathophysiology and Clinical Management

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FOREWORD

This book, "Contemporary Concepts in Cardiology", has been created by a superb group of editors including Richard Gorlin and George Dangas from New York, and Pavlos K. Toutouzas and M.M. Konstadoulakis from Athens.

Aside from its scientific merit, the book will serve as tribute to Professor Richard Gorlin, whose death occurred before the book reached the bookshelves of the readers. Gorlin taught us all the importance of learning the pathophysiologic mechanisms that are responsible for clinical conditions. Simply stated, he believed the art of medicine was improved if one understood why things happened. The legendary Gene Stead wrote why he and his associates perceived his teacher Soma Weiss as a great man. One reason he gives was, "his forte was to elicit the symptoms and signs and to relate them to pathophysiology." (Essays by E.A. Stead Jr. A way of thinking: a primer on the art of being a doctor. Edited by B.F. Haynes. Durham: Carolina Academic Press 1995: 65).

This book deals with contemporary concepts, and it is not presented as a complete treatise on cardiovascular problems. Rather it deals with current issues in which considerable progress and new insights are being developed. The book has been divided into seven sections: Coronary Artery Disease, Hypertension, Cardiomyopathies, Cardiac Genetics, Non-invasive Cardiology, Interventional Cardiology, and Electrophysiology. Each of the chapters leads the reader into a deeper understanding of the subject. Soma Weiss would, I believe, enjoy this book.

The editors and authors have done an excellent job in selecting and discussing the subjects that are currently being investigated and in which a conceptual understanding will improve the function and wisdom of the physician who studies their words.

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PREFACE

In the era of instant global communication, medicine is an international discipline characterized by a wide range of patient referral systems, world-wide discussion of clinical and research findings, and an explosion in the medical literature. Perhaps no field has progressed more than cardiology in the past few years.

The present text has been conceived as a supplement to the classic cardiology textbooks for the use of practicing physicians, cardiologists-in-training, medical students, and research investigators. We focus on associations between refinements in the understanding of disease and clinical applications. The material is presented in a way that limns the latest advances and focuses thinking towards future developments in cardiology.

We assembled a respected international panel of contributors so that each chapter is authored by a well-known specialist in his or her field. Every attempt was made to avoid the fragmentation which often characterizes the digest approach. Because the constant flow of information makes it nearly impossible to construct a timely book on advances in cardiology, the included chapters that describe the current concepts in cardiology and their underlying rationale, rather than attempting a comprehensive review of the most recent papers in each discipline. As new work emerges, it should fit into the overall blueprint.

This book would not have been possible without the help of many people. First, we thank the editorial team of the University of Athens for their collaboration. Next, we recognize the authors for their willingness to participate in this task and for their concise contributions. Thanks are also due to Karen Sadock, A.B., M.Div., for expert editorial review, and to I. Tiernan and M. Healy from the New York team, as well as to V. Kalaitzi and S. Tapa from the Athens team for their assistance. Finally, we acknowledge Melissa Ramondetta and Margarita Papailiou on behalf of the publishers.

George Dangas, Richard Gorlin

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PROLOGUE

We live in an era that Cardiology is punctuated by the rapid expansion of its scientific base; new technology and an availability of diagnostic and therapeutic modalities have never previously been encountered.

In this book we attempt to describe the important changes of the cardiology within the last couple of years. The advances made in cardiology are reviewed by the pioneers of this field. Thorough analyses of the results of national and international trials, on hypertension and hyperlipidemias are analyzed and evaluated.

Normal cardiovascular function are affected profoundly by a large number of processes at the molecular and genetic level that are now being understood. It is becoming clear that these abnormalities are the basis of many cardiovascular diseases. Research in the genetics of many diseases has been given added impetus by the increasing likelihood that gene therapy will become a realistic therapeutic option. For this reason, in this book, special emphasis is given on Molecular Cardiology and its potential application on prevention, diagnosis and therapy.

We dedicate this book to every physician and we believe that it comes to fill a gap in the current literature, emphasizing a possible victory of non-invasive cardiology, which seems to be ready for the challenge of the year 2000.

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