Endothelin Receptors. From the Gene to the Human. Edited by Robert R. Ruffolo, Jr. CRC Press Inc., Boca Raton, FL. 1995. 285 pp. 16 × 24 cm. ISBN 0-8493-5938-4. $169.95.

Since the discovery of the potent vasoconstrictor endothelin in 1988, considerable research interest has been generated in both academic and industrial laboratories studying cardiovascular disease. This work attempts to review the massive literature (over 5000 references to date) that has been generated by researchers relating to the molecular biology, biochemistry, medicinal chemistry, and pharmacology of endothelin. In general, the authors perform an admirable job of covering the literature through 1994.

This book is an addition to the series *Pharmacology and Toxicology: Basic and Clinical Aspects*, which was edited by Mannfred A. Hollinger. Consisting of eight chapters, each one is contributed by experts in the field, all of whom are researchers from SmithKline Beecham Pharmaceuticals. The chapters include (1) Introduction: Endothelin Receptors, (2) Endothelin Receptor Subclassification, (3) Molecular Biology of Endothelin Receptors, (4) Signal Transduction Process Involved in Endothelin-Mediated Responses, (5) Endothelin Receptor Antagonists, (6) Functions Mediated by Peripheral Endothelin Receptors, (7) Endothelin in the Central Nervous System, and (8) The Role of Endothelin in Human Disease: Implications and Potential Therapeutic Intervention. The text is followed by a complete and very useful index.

Most of the chapters are quite comprehensive and well referenced. In fact, chapter 6 contains over 600 literature citations. However, some of the chapters are less exhaustive in their breadth. For example, chapter 5 on endothelin receptor antagonists makes only a relatively cursory review of the prior literature, while a significant amount of the discussion is devoted to the development and structure−activity relationships (SAR) of a series of indanecarboxylic acid endothelin receptor antagonists. With this in mind, this book is still unique in comparison to previous works due to its broadness of scope by attempting to review the importance of endothelin from the molecular basis to the potential clinical applications. The authors are to be commended for their overall fine effort. Perhaps the most significant contribution of this book is found in chapter 8 in which the potential therapeutic utility of endothelin antagonists and ECE (endothelin-converting enzyme) inhibitors is addressed. This chapter represents one of the most comprehensive reviews of the therapeutic implications for endothelin that has been published to date.

This book is recommended as an addition to the libraries of institutions and individual researchers actively studying the physiological and/or pathophysiological role of endothelin. However, the relatively high cost of this book will probably limit its broader distribution.

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JM950757E

Antibiotics. A Multidisciplinary Approach. By Giancarlo Lancini, Francesco Parenti, and Gian Gualberto Gallo. Plenum Press, New York. 1995. ix + 278 pp. 15.5 × 23.5 cm. ISBN 0-306-44924-2. $59.50.

The book *Antibiotics. A Multidisciplinary Approach* is the English translation of an Italian edition, published in 1993, which itself was a revised and updated version of a book the authors first published in 1977. The book is divided into 10 chapters, starting with a general overview of antibiotics (chapter 1) and moving onto the activity of antibiotics (chapter 2), mechanism of action of antibiotics (chapter 3), and resistance of microorganisms to antibiotics (chapter 4). Chapter 5, the longest chapter (66 pages) in the book, deals with structure−activity relationships (SAR) of the different classes of antibiotics, and chapter 6 provides a general overview of the biosynthesis and genetics of antibiotic production. Chapter 7, which deals with the discovery and development of new antibiotics, outlines the challenges, strategic approaches, and logistical considerations encountered in the development of a new drug. Chapter 8 briefly discusses the basic therapeutic concepts and principles of antibiotic use, and chapter 9 concludes with a short discussion of antibiotics and producer organisms. Finally, chapter 10 is devoted to a list of references for further reading.

This book, which is clearly written and well organized, provides a broad and balanced overview of the antibiotics field, ranging from the molecular biology and biosynthesis of antibiotics to the SAR and industrial development of these agents. Noticeably lacking, however, were any references within the chapters, although presumably further information could be obtained by referring to chapter 10 which is devoted to references for further reading. Chapter 5, which reviews the SAR of antibiotics, will be of particular interest to medicinal chemists, although the information is already somewhat dated due to the rapid advances in this field. This book will be of interest and value both to those individuals actively involved in the anti-infective area as well as to novices wanting to learn more about antibiotics and should be a welcome addition to institutional and personal libraries alike.

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Annual Reports in Medicinal Chemistry. Volume 30. Editor-in-Chief: James A. Bristol. Academic Press, Inc., San Diego, CA. 1995. xi + 387 pp. 17 × 25 cm. ISBN 0-12-040530-X. $70.00 (pbk).

Volume 30 retains the well-known format of its predecessors. Accordingly, as in Volume 29, it is divided into seven sections: (I) Central Nervous System Diseases, (II) Cardiovascular and Pulmonary Diseases, (III) Cancer and Infectious Diseases, (IV) Immunology, Endocrinology and Metabolic Diseases, (V) Topics in Biology, (VI) Topics in Drug Design and Discovery, and (VII) Trends and Perspectives. Each section is edited by an

industrial authority in the specified area of drug research. The first four sections are disease-oriented and consist of four to six chapters; the final three sections are topical, and each has four chapters. Each chapter is 10 pages or less and is comprehensively referenced.

The first section, Central Nervous System Diseases (edited by David W. Robertson), is comprised of chapters that introduce and update: Recent Progress in Serotonin $(5\text{-HT})_{1A}$ Receptor Modulators; Centrally Acting Analgesics; Heterogeneity of Corticotropin Releasing Factor Receptors: Multiple Targets for the Treatment of CNS and Inflammatory Disorders; Emerging Opportunities in Neuroinflammatory Mechanisms of Neurodegeneration; Nicotinic Acetylcholine Receptors: Molecular Biology, Chemistry and Pharmacology; and Neuronal Calcium Channels. Section II, Cardiovascular and Pulmonary Diseases (edited by Annette M. Doherty), has first-time chapters on Vascular Proliferative Disease; Anticoagulant Strategies Targeting Thrombin and Factor Xa; and Potassium Channel Openers. An update chapter describes Progress in the Development of Endothelin Receptor Antagonists. Section III, Cancer and Infectious Diseases (edited by Jacob J. Plattner), consists of updating chapters on Antibacterial Agents and Antiviral Agents plus initial presentations on Bacterial Virulence as a Potential Target for Therapeutic Intervention; Retinoids for the Treatment of Oncological Diseases; Biological Response Modification by β-D-Glucans; and Therapy of *Helicobacter pylori* Infections: Current Status and Future Directions. Section IV, Immunology, Endocrinology and Metabolic Diseases (edited by William K. Hagmann), consists of the following chapters: Recent Advancements in the Discovery and Development of Agents for the Treatment of Diabetes; Gonadotropin Releasing Hormone Antagonists; Selective Cyclooxygenase Inhibitors; β_3-Selective Adrenergic Receptor Antagonists; The T Cell-Antigen Presenting Cell Interaction as a Site for Immunosuppressive Interventions; and Chemokines as Therapeutic Targets. Section V, Topics in Biology (edited by John C. Lee), continues to emphasize currently important new biology with chapters on Gene Therapy: Progress, New Directions, and Issues; SH2 and SH3 Domains: Choreographers of Multiple Signaling Pathways; Programmed Cell Death Mediated by Members of the TNF Receptor Family; and Tyrosine Kinase Induced Mitogenesis: Breaking the Link with Cancer. New chapters in Section VI, Topics in Drug Design and Discovery (edited by Michael C. Venuti), are: Catalytic Antibodies; Structure-Based Design from Flexible Ligands; Applications of Biosensor Technology in Drug Discovery; and Catalytic RNA (Ribosomes) as Drugs. The final section, Trends and Perspectives (edited by James A. Bristol), has the following chapters: Potential Use of Thalidomide in HIV/AIDS; Educating Medicinal Chemists; Research Investments in Managed Care, Cost-Containment, Oligopsony; and the annual To Market, To Market—1994, which this year describes the 44 new chemical entities introduced for human therapeutic use into the world market for the first time in 1994.

This volume, like its predecessors, provides up-to-date and critical reviews of important topics in medicinal chemistry. Again, increased emphasis is given to new areas in the biological sciences that promise to provide the basis for novel future drug therapies. This book, which is provided to all members of the American Chemical Society Division of Medicinal Chemistry, is an important addition to the libraries of all medicinal chemists, as well as to those of all scientists and researchers concerned with the design, discovery, and development of new drug therapies.

Staff

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