Book Reviews

Annual Drug Data Report. Volume IX. Edited by J. R. Prous. Prous Science. 1987. xv + 1103 pp. 22 × 30 cm. ISBN 0379-4121. $500.00

This is the ninth year in which *Annual Drug Data Report* has been published. It is designed to provide readers with a reference source for rapid and basic consultation. The annual volume consists of a compilation of 11 monthly issues (February through December). It is a computer-based publication in which 15 000 new compounds within 3000 entries are published. The main body of information derives from preferred individual compounds from most recent patents. Many of these compounds are subsequently being identified and assigned generic names or commonly used code numbers. This offers a testimonial to the usefulness of the publication in anticipating future drug developments. For each entry there is presented an index number, name, structure, molecular formula, molecular weight, description of action, related structures, manufacturer, and bibliography. The volume includes a comprehensive series of indices, including amendments to Volumes 2–9, a therapeutic index, manufacturer index, molecular formula index, entry number index, and an accumulative cross index of names for Volumes 7–9.

The only shortcoming to the volume is that it is a collection of monthly issues, and searching out a topic becomes somewhat laborious. Nonetheless, the coverage is superbly up-to-date and predictive of future developments. It is an absolute must for all medicinal chemical, biological, and medical libraries.

Staff

New Perspectives in Anti-Inflammatory Therapies. Edited by Alan Lewis, Neil Ackerman, and Ivan Otterness. Raven Press, New York. 1988. xvii + 334 pp. 16 × 24 cm. ISBN 0-88167-362-5. $94.00

This book, which is Volume 12 in the *Advances in Inflammation Research* series, contains the proceedings of the Third International Conference of the Inflammation Research Association held in White Haven, PA, October 19–23, 1986. The proceedings of the first two conferences are contained in Volumes 7 and 11 of this series. The main focus of the conference was identification of novel therapeutic targets and drugs for treatment of arthritis. The book includes the plenary lecture Emigration of Lymphocytes in Rheumatoid Synovitis (M. Ziff). It is then divided into three main sections on Cytokines and Degradative Enzymes in Inflammation, Lipid Mediators in Inflammation, Evaluation of Novel Antirheumatic Drugs, and a final short section summarizing the conference workshops. The chapters within each main section range from presentations of experimental data on highly specialized topics to review articles that provide a good introduction into an area. Most chapters have clearly stated purposes and conclusions and contain useful tables and figures. References are usually extensive and cover the literature through 1986. The book has an author index that includes affiliations and an adequate subject index.

The first section contains two excellent reviews. One (B. Beutler and A. Cerami) describes the discovery, biology, and role in inflammation of cachectin/tumor necrosis factor (TNF). The other (R. Moore) emphasizes the dual nature of colony-stimulating factors (CSF's) which function as regulators of myelopoiesis and also influence the inflammatory response of mature cells. Also included is a characterization of murine and human IL-1 molecules and the IL-1 receptor from EL-4 membranes (P. Kilian et al.), and experimental evidence for activation of protein kinase C following interaction of IL-2 and IL-3 with their receptors (W. Farrar et al.). Three chapters that emphasize the role of neutral metalloproteinases in osteoarthritis and give an overview of a drug development program for that disease complete the first section.

The section on lipid mediators deals mainly with the products of 5-lipoxygenase (5-LO) metabolism of arachidonic acid. One chapter (C. Rouzer and B. Samuelsson) presents evidence that human leukocyte 5-LO requires three cellular components plus Ca^{2+} and ATP for maximum activity. Four chapters deal with leukotriene B_4 (LTB_4). Included are reviews of its biochemistry (W. Pickett and G. Carter) and catabolism (S. Shak). The other two chapters present experimental evidence showing a role for LTB_4 in T-cell activation (M. Rola-Pleszczynski) and describe binding studies with LTB_4 receptors in human neutrophils and myeloid-differentiated HL-60 cells (R. Gorman et al.).

Discussions of the potential role of arachidonic acid metabolites in nonrheumatic diseases including psoriasis (R. Camp), ischemia/reperfusion injury (K. Mullane), and inflammatory bowel disease (W. Stenson) are also included in this section. Chapters dealing with platelet activating factor (PAF-acether) antagonists (P. Braquet et al.) and leukotriene receptor antagonists (J. Fleisch et al.) for potential use in asthma and other diseases complete this section.

The remaining major section deals with clinical aspects in the treatment of rheumatoid arthritis including the problems associated with evaluating drugs with novel or unknown mechanisms. Specific drugs are discussed including sulphasalazine (H. Capell et al.), ebselen (M. Parnham et al.), cyclosporin A and methotrexate (M. Weinblatt), and gamma interferon (J. Schindler et al.). Also included is a chapter describing the discovery and characterization of cyclophilin (M. Harding and R. Handschumacher).

The preface states this book is intended for rheumatologists, pharmacologists, and immunologists. Indeed, as a medicinal chemist, I found a few chapters to be of only passing interest. I found some of the reviews and medicinal chemistry presentations to be of particular benefit. Included in the latter are a chapter on the development of inhibitors of rabbit articular chondrocyte metalloproteoglycanase (A. Shaw et al.) and the previously mentioned chapters on PAF-acether antagonists and leukotriene receptor antagonists.

In summary this book covers the state of research in 1986 into novel therapies for inflammatory disease, in particular rheumatoid arthritis. Its contents are relevant today since potential targets for modulation mentioned in the book remain under active investigation and questions as to the therapeutic effect of such modulation remain unanswered. Among the topics of current interest not covered in this volume are adhesion molecules, interleukins 4, 5, and 6, and phospholipase A_2 antagonists.

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