binding of these compounds to PLA2s as well as additional structure/function experiments are underway.

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Supplementary Material Available: Details of the kinetic analysis and isolation of the PLA2 inhibitors, structural characterization of 1–4, studies of protection from alkylation, and partitioning of the inhibitors between the vesicle and aqueous phases (8 pages). Ordering information is given on any current masthead page.

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Book Reviews

Annual Review of Pharmacology and Toxicology. Volume 32, 1992. Edited by Arthur K. Cho, Terrence F. Blaschke, Horace H. Loh, and James L. Way. Annual Reviews, Inc., Palto Alto, CA. 1992. viii + 698 pp. 15.5 × 23 cm. ISBN 0-8243-0432-2. $44.00.

This volume presents up-to-date reviews on subjects of topical interest to pharmacologists, toxicologists, medicinal chemists, and other scientists in the health and allied sciences. The first review is one contributed by Nobel Laureate George H. Hitchings entitled "Antagonists of Nucleic Acid Derivatives as Medicinal Agents". Other reviews written by leaders in their fields are "Review of Revues", "Glucuronidation and Its Role in Regulation of Biological Activity of Drugs", "Concepts in Chronopharmacology", "Inhaled Toxicants and Airway Hyperresponsiveness", "Catalytic Sites of Hemoprotein Peroxidases", "Hydrogen Sulphide and Its Toxicologic Implications", "Pharmacology of Nonpeptide Angiotensin II Receptor Antagonists", "Mutagenesis of the Beta-2 Adrenergic Receptor: How Structure Elucidates Function", "Population Pharmacokinetics/Dynamics", "Mitochondrial Benzodiazepine Receptors and the Regulation of Steroid Biosynthesis", "Selective Naltrexone-Derived Opioid Receptor Antagonists", "Geriatric Pharmacology. Basic and Clinical Considerations", "Theoretical Basis for a Pharmacology of Nerve Growth Factor Biosynthesis", "Therapeutic Applications of Oligonucleotides", "Pharmacology of Protein Kinase Inhibitors", "The Central Role of Voltage-Activated and Receptor-Operated Calcium Channels in Neuronal Cells", Pharmacodynamic Modeling of Anesthetic EEG Drug Effects", "Calcium-Mediated Mechanisms in Chemically Induced Cell Death", "Role of Covalent and Noncovalent Interactions in Cell Toxicity: Effects on Proteins", "Biochemical and Molecular Pharmacology of Kinin Receptors", "The Chemistry of Avermectins", "Tandem Mass Spectrometry: The Competitive Edge for Pharmacology", "Cytotoxic Conjugates Containing Translational Inhibitory Proteins", and "Determinants of Metabolite Dispositions". Each review is followed by a comprehensive list of references. The book includes an excellent subject index followed by cumulative indexes for contributing authors and chapter titles for volumes 28–32.

Researchers in the fields reviewed will benefit from individual desk copies of this volume. Others will want access to the volume from institutional libraries.

Staff

The Organic Chemistry of Drug Design and Drug Action. By Richard B. Silverman. Academic Press, Inc., San Diego, CA. 1992. xiv + 422 pp. 16 × 24 cm. ISBN 0-12-643730-0. $55.00.

Unlike traditional medicinal chemistry texts that are generally organized by classes of drugs and a description of their pharmacological effects, this book emphasizes the organic chemical aspects of medicinal chemistry. As such, it concentrates on the organic chemistry of drug design, drug development, and drug action. Organic chemical principles and reactions important to the design of drugs and an understanding of their action are emphasized. Clinically important therapeutic agents are used as examples. In this manner, the author has presented the concepts of medicinal chemistry in terms of rational physical organic chemistry. The principles that are clearly described in this book should provide the foundation for future elucidation of drug action and the rational discovery of new drugs based on organic chemical phenomena. The organization of this book and the clarity of presentation are outstanding. Thus, following an introductory chapter are ones directed toward drug discovery, design and development, receptors, enzymes, DNA, drug metabolism, and prodrugs and drug delivery systems. Each chapter is followed by specific references as well as general references to significant reviews. An excellent subject index is also included.

This book very clearly presents medicinal chemistry as a unified discipline based on sound principles of organic chemistry. It is highly recommended to medicinal chemists as well as to all others entering into the field or concerned with the science of medicinal chemistry.

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