Book Reviews

Frontiers in Neurobiology 3. Amino Acid Neurotransmission. Edited by F. Anne Stephenson and Anthony J. Turner. Portland Press, London. 1998. xiv + 247 pp. 16 × 23.5 cm. ISBN 1-85578-0801. $127.50.

Contained in this monograph are 11 chapters covering various aspects of amino acid neurotransmission, with particular emphasis on molecular neurobiology. The strengths of this offering are the quality of the authors, many of whom are leaders in this field, the concise description of each topic, and the excellent graphics. As is often the case with monographs, the text suffers from unevenness in coverage, redundancies, and variations in timeliness. Thus, there is no discussion of the $GABA_B$ receptor, which was cloned over a year ago, whereas there is a great deal of overlap in the description of the molecular properties of $GABA_A$ receptors. Moreover, while the citations in most chapters cover articles published through early 1997, in some cases the literature is reviewed only through 1994. Given the rapid pace of discovery in this field, and the number of review articles and books published in this topic on a regular basis, experts in this area will find little new information in this text. Possible exceptions are the chapters on release mechanisms and strychnine-sensitive glycine receptors. The data reviewed in these offerings suggest a number of new possibilities for drug development.

This slim volume will be of particular interest to biologists wishing a concise, but limited, overview of the topic. Those seeking chemical leads may be disappointed since there is only passing mention of compounds used to manipulate these neurotransmitter systems. Indeed, information about drug trials is dated with some of these compounds having been withdrawn from human study, and there is little discussion about the more recent developments in the design of novel receptor agonists and antagonists for metabotropic glutamate and GABA receptors.

The editors should be commended for assembling such a fine group of authors. While the pace of discovery in such a popular field renders any review obsolete within months, this volume could be useful for those seeking to familiarize themselves with a topic of importance to neuroscientists.

S. J. Enna
Department of Pharmacology, Toxicology and Therapeutics
University of Kansas Medical Center
Kansas City, Kansas 66160

JM980270G

S0022-2623(98)00270-2

The P2 Nucleotide Receptors. Edited by John T. Turner, Gary A. Weisman, and Jeffrey S. Fedan. Humana Press, Totowa, NJ. 1997. xi + 440 pp. 16 × 23.5 cm. ISBN 0-89603-425-9. $139.00.

The editors of the book, *The P2 Nucleotide Receptors*, have made an attempt to cover some of the more recent developments in the area of nucleotide receptors. The book has been divided into five parts which include a total of sixteen chapters, two of which cover historical perspectives and future directions. The three major parts cover the mechanisms of P2 receptor activation, pharmacological and molecular characterization, and physiological roles of P2 nucleotide receptors. Attention is drawn to another recent book, *Purinergic Approaches in Experimental Therapeutics*, which covers a variety of aspects of this research area (for book review, see: *J. Med. Chem.* **1998**, *41*, 1355−6).

The chapter on historical perspectives of P2 receptors describes the evolution and progress of research on this topic in great detail with exhaustive citation of bibliography. The cloning and expression of $P2X_{1-7}$, $P2Y_1$, $P2Y_2$, $P2Y_4$, and $P2Y_6$ receptors are described well with relevant references (Chapters 2, 3). The agonist pharmacology of these receptors is discussed adequately without any information on antagonist pharmacology (Chapters 5, 7, 9). The chapters on P2 receptor agonists and antagonists and molecular modeling of P2Y receptors (Chapters 4, 6) with insight into the possible binding modes and sites are highly useful for a researcher interested in the design of novel P2 receptor modulating agents. The physiological responses to activation of P2 nucleotide receptors is described in detail; however, a discussion on the possible therapeutic uses of agonists/antagonists of each of these receptors is lacking (with the exception of $P2Y_2$, Chapter 15).

The index has been written satisfactorily. The book is more expensive than the one edited by Jacobson and Jarvis, and it focuses on research on P2 receptors with useful details and bibliography. It could be a useful addition to the collection of vital information for a researcher in the field of P2 nucleotide receptors.

Shripad S. Bhagwat
Pharmaceuticals Products Division
Abbott Laboratories
100 Abbott Park Road
Abbott Park, Illinois 60064-3500

JM9802719

S0022-2623(98)00271-4