Book Reviews

Analytical Metabolic Chemistry of Drugs. Jean L. Hirtz. In translation from the French by Edward R. Garrett. Marcel Dekker, New York, N. Y., 1971. xvii + 395 pp. 23.3 × 15.6 cm. Offset type. $24.50.

This new member of the growing number of books and reviews on drug metabolism concentrates on the methodology of studies in this field, with emphasis on chromatographic details in the isolation of drug metabolites. As far as possible, each drug treated is shown with a generic name and structural formula; a richly documented history of the metabolic pathway of the drug in various species including man precedes a description of chromatographic procedures and R_f constants in several solvent systems. The translator has adopted many non-American and non-English names and expressions [benzol instead of benzene; Eb instead of bp; ethyl hexanol (?), etc.] but these minor flaws do not detract from the wealth of data presented. Drugs are grouped on the basis of their chemical relation rather than their biological activity, a wise move for an analytical chemist. The bibliography contains 1044 references, covering about 350 drugs and 650 metabolites. There are complete author and subject indexes, and the book is appointed so attractively that one forgets about the unjustified margins.

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Topics in Medicinal Chemistry. Volume 4. Absorption Phenomena. Edited by Joseph L. Rabinowitz and Ralph M. Myerson, with 13 contributors. Wiley-Interscience, New York, N. Y. 1971, xiii + 356 pp. 15.5 × 23 cm. $19.95.

All nutrients, drugs, and other extraneous materials must pass through a variety of membranes to enter the animal organism. The selective toxicity and effectiveness of a compound depends on the proper absorption and subsequent distribution in the body. Until very recently the incredible complexity of membrane chemistry has denied us an understanding of absorption processes. Electron microscopy and methods of molecular biology have opened a crack in the door of membrane chemistry, and the first steps beyond purely descriptive observations or wildly speculative thoughts can now be taken. The present volume summarizes many aspects of absorption in experimental and clinical situations. Several chapters concentrate on the tissues at which absorption occurs, others on transport systems, and still others on absorption and distribution of special substances. To this reviewer the best survey is that on intestinal absorption by Ruth R. Levine, which should have set the pace and standards for all other contributors for scope, thoroughness, and good writing.

Medicinal chemists, at this time, can alter absorption by latentiation or by pharmaceutical manipulations such as timed release methods. Structural modification, so often invoked to alter absorption, is treated very lightly and in only a few spots. Thus the book will be most profitable to pharmacologists, biochemists, molecular pharmacologists with a therapeutic bend, and clinicians.

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Biogenic Amines and Physiological Membranes in Drug Therapy. Edited by John H. Biel and Leo G. Abood, with 15 contributors. Marcel Dekker, Inc., New York, N. Y. 1971. Part A. ix + 160 pp. 16 × 24 cm. $12.50. Part B. vii + 525 pp. $25.50. Type off-set, unjustified margins.

The first part of this 2-volume work contains an up-to-date and in-depth review of excitatory membranes, their functions and structures. This knowledge is applied to a survey of the modes of action of several classes of drugs which act at membranes, such as antidepressants, antipsychotics, antihypertensive and antiallergic agents, and antiparkinsonism drugs. The approach is multidisciplinary, ranging from organic chemistry to histology aided by electron microscopy. In addition, the surveys are unbiased by earlier findings from specific research groups who so often have tried to drive home a given hypothesis or explanation.

The second part is a broad review of histaminergic, dopaminergic, and general neurotransmitter functions and events. These include descriptions of methodology and biochemical techniques useful in the search for drugs affecting biogenic amines. Again each observation has been carefully documented and illuminated from all points of view. The concluding chapter, a little as an after-thought, presents the most thorough and authoritative review of the NIH shift ever written. The authors of the various sections and the scientific editors are to be congratulated upon a valuable and broad compilation of highly timely data. The new series editor should have proofread the two books; they abound with typographical errors.

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