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## BOOKS

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### REVIEWS

**Psychopharmacology: From Theory To Practice.** Edited by JACK D. BARCHAS, PHILIP A. BERGER, ROLAND D. CIARANELLO, and GLEN R. ELLIOTT. Oxford University Press, 200 Madison Ave., New York, NY 10016. 1977. xxiii + 557 pp. 15 × 23 cm. Price \$17.95 cloth, \$10.95 paper.

Although the treatment of mental and emotional diseases still leaves much to be desired, some of the most dramatic accomplishments have occurred in the area of pharmacotherapy. A quarter of a century has elapsed since the introduction of the new psychotropic drugs. During this generation of progress, the number of patients in mental hospitals has steadily decreased by about 360,000 from 559,000 in 1955 to the current estimate of less than 200,000. Attitudes have also changed toward mental and emotional disorders, with the recognition that these disorders are treatable and affect people of all ages. The economic cost of mental illness to this nation is estimated at more than \$50 billion annually.

This book discusses recent developments in the study of neurotransmitters and neuromodulators (neuroregulators) and evidence indicating that behavioral events alter neurochemical function and that altered neurochemical function also can change behavior. Its central theme is the importance of neuroregulators and how they are affected by drugs. Thus, the interrelationships of drugs, neuroregulators, and behavior become the essence of psychopharmacology.

The text is fundamentally concerned with "the major psychiatric disorders and the manner in which the science of pharmacology may be applied, either immediately or ultimately, to their amelioration." The authors attempt to integrate the basic science and clinical aspects of psychopharmacology for those who will be responsible for the treatment of psychiatric patients. The scientific principles behind psychopharmacology are explained first, and then their relevance to the use of psychotropic drugs in good patient care is demonstrated. The text does not delve deeply into patient management, provide detailed descriptions of drug classes, summarize drug efficacy studies, or review classifications of psychiatric illnesses. Its coverage of pharmacotherapy is not very detailed.

"Psychopharmacology" is divided into five parts. Part I reviews, very nicely, the basic fields of study in psychopharmacology dealing with biochemical information on neuroregulators and the presumed mechanism of action of psychotropic drugs. Part I also includes chapters on the psychological and sociological aspects of psychopharmacology. Part II describes disorders that affect most patients who require psychiatric care, while Part III deals with drug abuse. Part IV discusses the pharmacotherapy of the young and the elderly, and Part V discusses specific topics important to psychopharmacology such as the use of placebos, the psychiatric effects of nonpsychiatric drugs, and the relationship of psychotherapy and pharmacotherapy.

The authors tried to make the treatment sections as practical as possible, providing information on normal dose ranges and side effects. They caution physicians that "the act of prescribing requires knowledge, care

and clinical judgment," but omit a warning about individual human variability.

This book was written by 27 contributors, mostly physicians from Stanford University and the Palo Alto Veterans Administration Hospital, who have drawn upon their cumulative research and clinical experience to provide a useful guide, from theory to practice, of the major psychiatric disorders in the "new territory of psychopharmacology." It provides a knowledge base in psychopharmacology that will permit its readers to be informed practitioners and enable them to evaluate new information as it becomes available. Although "Psychopharmacology" is not a comprehensive survey of the generation of progress in this field, it is a good book and should be useful to clinicians, pharmacists, researchers, teachers, and students alike. Those interested in neuroregulators and their relation to behavioral disorders should buy a copy.

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**Drugs. How They Act and Why.** By ALEX GRINGAUZ. C. V. Mosby, 11830 Westline Industrial Drive, St. Louis, MO 63141. 1978. 344 pp. 18 × 26 cm. Price \$14.95.

This book is intended to serve as an aid to continuing education of pharmacists and other health professionals, particularly those who completed their formal academic training several years ago, before the advent of modern medicinal chemistry and molecular pharmacology. Accordingly, the level of presentation is elementary, and the discussions should be easily understood by the reader who has only minimal recollection of undergraduate biochemistry and medicinal chemistry.

The first chapter is a general introduction of some fundamentals of biochemistry. Chapters 2-4 consist of a review of some important characteristics of drug action, with emphasis on physicochemical principles, *e.g.*, factors affecting bioactivity, theories of drug action, selective toxicity, drug-receptor interactions, some stereochemistry and topography, some enzymology, antimetabolites, and chelation.

Thereafter, the book discusses some major classes of medicinal agents from the standpoint of biochemical mechanisms of action and clinical pharmacology. As the author emphasizes in the preface, not all categories of drugs are included because the book is not intended to be encyclopedic. Thus, the author selected the following topics: anticancer agents, antibiotics, adrenergic drugs, cholinergic drugs, analgesics, psychotherapeutics, and cardiovascular agents. Considering the objective of the book, most discussions seem to be adequate; however, in some cases extreme brevity leads to incomplete characterizations of important structure-activity relationships and mechanisms of action.

## NOTICES

The last chapter is on drug interactions, and its purpose is to survey mechanisms and factors involved in drug interactions.

Finally, the book contains two appendixes: drug metabolism and inactivation, and drug-induced effects on laboratory diagnostic tests.

The author succeeded in accomplishing his objective in the preparation of this book. Moreover, this book will prove to be beneficial not only to practicing pharmacists but also to other professionals who need updating in medicinal chemistry.

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**Drug Fate and Metabolism: Methods and Techniques, Vol. 2.** Edited by EDWARD R. GARRETT and JEAN L. HIRTZ. Dekker, 270 Madison Ave., New York, NY 10016. 1978. 382 pp. 14 × 23 cm. Price \$39.50.

This volume is the second in a series dealing with drug fate and metabolism, including such topics as spectroscopy, stereochemistry, and the mechanisms of drug action. Emphasis is placed on methods rather than on theory. The book is divided into six chapters, each of which is authored by scientists having expertise in a specific area of drug methodology.

Chapter 1 emphasizes the application of voltammetric methods to drug analysis. Chapter 2 discusses the use of derivatization, detection, and metabolic transformation in GLC. The authors include an excellent literature reference list of various drugs analyzed by GLC. Chapter 3 describes stereochemical methodology, especially the discrimination of diastereoisomers and enantiomers. Chapter 4 reviews the physicochemical, instrumental, and experimental features of fluorescence spectroscopy. Chapter 5 describes the use of nonradioactive immunoassays, including viroimmunoassay and enzymeimmunoassay. Chapter 6 discusses the isolation, separation, and assay methods for the analysis of glucuronic acid conjugates.

Although the main emphasis of this book is geared toward the research scientist, it is a valuable supplement for students interested in toxicology, analytical chemistry, and pharmacology.

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*Thrombosis. Animal and Clinical Models. Vol. 102 of Advances in Experimental Medicine and Biology.* Edited by H. JAMES DAY, BASIL A. MOLONY, EDWARD E. NISHIZAWA, and RONALD H. RYNBRANDT. Plenum, 227 W. 17th St., New York, NY 10011. 1978. 337 pp. 16 × 25 cm. Price \$35.00.

*Prevention and Detection of Cancer. Part II. Detection. Vol. 1. High Risk Markers. Detection Methods and Management.* Edited by HERBERT E. NIEBURGS. Dekker, 270 Madison Ave., New York, NY 10016. 1978. 1299 pp. 18 × 25 cm. Price \$62.50.

*Etiology, Pathophysiology, and Treatment of Acute Gastroenteritis. Report of the 74th Ross Conference on Pediatric Research.* Ross Laboratories, Columbus, OH 43216. 1978. 125 pp. 14 × 22 cm.

*Manual of Dermatologic Therapeutics With Essentials of Diagnosis, 2nd Edition.* By KENNETH A. ARNDT. Little, Brown, 34 Beacon St., Boston, MA 02106. 1978. 377 pp. 13 × 23 cm. Price \$10.95.

*Journal of Veterinary Pharmacology and Therapeutics. Vol. 1, No. 1.* Edited by ANDREW YOXALL and CHARLES SHORT. Blackwell Scientific Publications, Osney Mead, Oxford OX20EL, England. 1978. 92 pp. 16 × 25 cm.

*Drugs and the Inheritance of Behavior. A Survey of Comparative Psychopharmacogenetics.* By P. L. BROADHURST. Plenum, 227 W. 17th St., New York, NY 10011. 1978. 206 pp. 15 × 23 cm. Price \$19.50.

*Biosynthetic Products for Cancer Chemotherapy. Vol. 2.* By GEORGE R. PETTIT and GORDON M. CRAGG. Plenum, 227 W. 17th St., New York, NY 10011. 1978. 150 pp. 14 × 23 cm. Price \$35.00.

*Discovery, Development and Delivery of New Drugs.* By KARL H. BEYER, Jr. Spectrum, 175-20 Wexford Terrace, Jamaica, NY 11432. 1978. 238 pp. 15 × 12 cm. Price \$20.00.

*An Introduction to Microscopy by Means of Light, Electrons, X-Rays, or Ultrasound.* By THEODORE GEORGE ROCHOW and EUGENE GEORGE ROCHOW. Plenum, 227 W. 17th St., New York, NY 10011. 1978. 367 pp. 15 × 23 cm. Price \$29.50.

*Acetylcholine Synthesis in Neurons.* By S. TUCEK. Wiley, 605 Third Ave., New York, NY 10016. 1978. 259 pp. 15 × 24 cm. Price \$37.50.

*Reviews of Physiology, Biochemistry and Pharmacology. 81.* (Formerly *Ergebnisse der Physiologie, Biologischen Chemie und Experimentellen Pharmacologie.*) Edited by R. H. ADRIAN *et al.* Springer-Verlag New York Inc., 175 Fifth Ave., New York, NY 10016. 1978. 214 pp. 16 × 25 cm. Price \$43.00.

*Scientific Foundations of Clinical Biochemistry. Vol. 1: Analytical Aspects.* Edited by DAVID L. WILLIAMS, RONALD F. NUNN, and VINCENT MARKS. William Heinemann Medical Books Ltd., 23 Bedford Square, London WC1B3HH, England. 1978. 490 pp. 21 × 28 cm. Price 25.00 Fr.