Book Reviews


This volume summarizes more than 650 compounds belonging to the classes of neuroleptics, tranquillizers, antidepressants, psychostimulants, and psychodyslptics (hallucino-genics, psychotomimetics) and indicates for each drug the chemical formula, free and trade names, manufacturers, and countries (including those of the eastern hemisphere). Not included are drugs without specific psychotropic activity: antihistaminics, antiepileptics, anti-Parkinson drugs, hypnotics, anesthetics, narcoanalgetics, and drugs exerting psychic effects only during misuse. Unfortunately, there are many (unavoidable?) gaps in regard to the localization of a drug or a manufacturer, or both. A very valuable feature is the listing of formulations containing a given psychoactive compound besides other drugs. It is furthermore important that substances still in clinical testing (TRH as an antidepressant is missing) and those which were on the market and have been removed, are also included. There is a very large alphabetical index with thousands of entries and an index of abbreviated chemical formulae. This altogether results in a useful work though it is just a compilation without commentary or discussion. Many a reader will feel amazed, but not amused, by the wealth of artificial names of trademarks connected with drugs like amphetamine, chlorpromazine, or meprobamate.

G. Zetler, Lübeck


Volume 5 of this excellent series on the presence and function of cyclic nucleotides in cellular systems contains the lectures and abstracts of the Second International Conference on Cyclic AMP which was held in Vancouver, B.C. July 8-11, 1974. The 45 invited lectures together give a comprehensive view of the current research interests and new developments in the cyclic nucleotide field, and this book allows those who did not take part in the meeting to gain the same level of information. The same holds true for the inclusion of the abstracts of the poster demonstrations which also show the main topics of the most recent investigations. Comparison of volume 5 of this series with volume 1 which contained the lectures held during the First International Conference on Cyclic AMP in Milan, 1971, shows the tremendous progress which has been made during the 3 years. Therefore, volume 5 may be extremely well suited to get an introduction into the field as well as a synopsis of trends in cyclic nucleotide research. The detailed author and subject indices are also useful for readers wanting special information on specific topics. Like the other volumes of this excellent series, volume 5 is a part of the essential cyclic nucleotide handbook needed by everyone working in this field.

P.S. Schönhöfer, Hannover
The book provides a detailed review of the literature on the major drug-induced disorders of the hemopoiesis, i.e. aplastic anemia, agranulocytosis, thrombocytopenia, hemolytic anemia, and megaloblastic anemia. The symptomatology and diagnostic procedures are described in great detail. Much emphasis is placed on the enumeration of drugs which have been associated with various forms of blood dyscrasias. The author also reviews the possibilities for therapy and gives much information about prognosis of these toxic reactions. The author’s desire to include the largest possible number of chemicals that have caused blood disorders makes this book a most useful source of information for clinicians who are often faced with the problem of hematological drug reactions. It also gives many hints on how the monitoring and evaluation of drug-related toxic effects can be organized in the hospital practice.
G. Zbinden, Zurich

Pharmacological experimentation has provided much of the basis for the view that central cholinergic systems are important for the behaviour. This clearly emerges from this book which treats in a concise way the role of cholinergic mechanisms for consciousness (e.g., arousal, sleep-wakefulness, sensory systems), motor systems (e.g., postures, reflexes, tremors, convulsions, catalepsy, circling), homeostatic functions (e.g., respiratory, cardiovascular), motivated behaviours, emotion, learning and memory (e.g., Ingestion, aggression, self-stimulation), and the central release of acetylcholine. The author also criticizes views and procedures of others and eventually arrives at lines of future research in this field. This well-produced book contains 110 figures and 18 tables, mostly taken from the works of others, and closes with a list of references (pp. 167-206), an author index of 11 pages, and a subject index of 5 pages.
G. Zetler, Lübeck

The title is somewhat misleading since, as the author points out in the preface, the scope of the book is limited to pharmacotherapy. Many other therapeutic methods from surgery to occupational therapy are not considered. It was a good idea to differentiate between ‘Treatment for causes of neurological disorders’ (pp. 73-159) and ‘Treatment for consequences of neurological disease’ (pp. 163-288). Besides therapeutic actions of a given drug, pharmacokinetics, dose regimens, adverse reactions and interactions with other drugs are discussed. However, mentioning the plasma half-life without considering the practical consequences will be too academic for many a reader. It is meritorious to begin the book with a chapter on ‘Clinical neuropharmacology’ (pp. 3-69). However, much of the material presented under this heading is of preclinical nature and uses many oversimplified schemes, e.g., in figures 22-33 about interactions of agonists and antagonists at the receptors for transmitters. The legend of figure 7 on the influence of the type of dosing on plasma drug level correctly refers to three drawings, a, b, and c. The drawings, however, cannot be identified since the three letters are missing there. The book closes with a list of references (pp. 289-318) and a useful index (pp. 318-328).
G. Zetler, Lübeck

Book Reviews
92

This booklet is a dictionary in which medical abbreviations from three languages (German, English, French) are collected. The abbreviations are explained by the full form but usually no further hints regarding the meaning etc. are given. Abbreviations are widely used in the medical language and the various medical disciplines have developed their own abbreviations. This has led to the situation that the same letters or combinations of letters are frequently applied as abbreviations for different terms. This is true for one language and even more if other languages have to be considered too. This booklet will be therefore a very useful aid for the reader of medical literature, particularly if publications of different disciplines or in various languages have to be studied.

K. Karzel, Bonn


This introduction to clinical pharmacology is addressed to nurses and might be useful also for members of other medical assistance professions. In a short introductory chapter, some general pharmacological aspects are presented. The main part of the book deals in 35 chapters with special pharmacology and is classified according to clinical requirements. As the reader is not expected to possess pharmacological knowledge, the chapters usually begin with some remarks on the historical, physiological or pharmacological background of the treated group of drugs. This is followed by considerations regarding the clinical use of these drugs, whereas chemistry and theoretical discussions are nearly completely omitted. Particular attention is paid to potential side effects of drugs and to instructions to be given to patients at discharge. Most of the chapters close with synoptical tables summarizing the practically important facts (generic and trade names, uses, side effects and dose ranges) for each group of drugs. The book will be certainly welcome to nurses as a useful aid in acquiring that knowledge of drug therapy which they need for their clinical work.

K. Karzel, Bonn


This pocketbook-sized introduction to drug therapy of psychiatric disorders aims at informing general practitioners and other physicians about possibilities, limits and risks of the application of psychoactive drugs. The content of the book is based nearly entirely on the advances in this field during the last two decades. The authors deal in three more extensive chapters with antidepressives, neuroleptics and tranquilizers. Each of these chapters contains a general part treating pharmacological, biochemical and clinical aspects, and a special part, describing individual drugs as to their indications, dosages, side effects and contraindications. Shorter chapters are devoted to a few non-classified drugs (chlor-methiazol, cyproteronacetate, disulfiram), to psychostimulants, psychotomimetics, drugs against parkinsonism, hypnotics and drugs stimulating central blood supply; in a final chapter, the application of drugs in acute psychiatric conditions is discussed. This instructive and synoptical booklet certainly will find the interest of many physicians.

K. Karzel, Bonn

Book Reviews

In contrast to most books on pharmacology, which describe the effect of drugs on the animal or human organism, this book is mainly concerned with the effect of the body on drugs. The understanding of the time-course of drug resorption, distribution, metabolism and excretion is quite essential for the general aspects of pharmacodynamics. These investigations (under the general term of ‘pharmacokinetics’) are of increasing interest to pharmacologists and clinicians. In the first chapter of this book, the author describes the physico-chemical properties and interactions of drugs and their biological targets and stresses the importance of the law of mass action. The following chapters 2-5 concentrate on uptake, distribution, metabolism, excretion and bioavailability as factors determining blood and tissue concentrations of drugs. The basic mathematical evaluation and calculations in pharmacokinetics are described in chapter 6, with special emphasis on multiple dosing. Quantitative evaluation of drug interactions and of urinary excretion are the main topics of chapters 7 and 8. The last chapter deals with concentration-effect relationships. In addition, the reader will find three appendices about accumulation during multiple dosing, drug analysis, and a list of recommended text books on pharmacology. All topics in this book are accompanied by an excellent selection and presentation of practical examples. It has therefore a most didactic and informative value not only for students in pharmacology but also for many physicians and veterinarians and may be recommended for all students in medicine and pharmacy.

D.A. Kalbhen, Bonn


The 3rd German edition of Methods of Enzymatic Analysis by Bergmeyer is a response to the rapid development of biochemistry and enzyme analysis. In its two volumes this new edition contains the most comprehensive collection of methods and data on enzymes, substrates and metabolites for biochemical analysis. Since 1970 The Bergmeyer has become the most used laboratory handbook of world-wide reputation and application. It now may be regarded as a standard manual for all scientists and laboratory personal in biochemical research. More than 200 experts have participated in the elaboration of the many and detailed descriptions of enzymatic procedures. Basic principles of theoretical and experimental aspects of enzymatic methods are presented clearly and didactically. Recent developments of new techniques and measuring instruments for enzyme analysis are evaluated and included in this new edition.

Besides an introduction into the theoretical and practical basis of methods in enzymatic analysis and a description of biochemical reagents, volume 1 contains a complete and up-to-date collection of methods for measurement of enzyme activity. In volume 2 all procedures for the determination of metabolites are presented. In addition, there are tables presenting data about the concentrations of metabolites in different tissues of laboratory animals.

Each volume has a complete subject and authors index as well as a list of the new classification and nomenclature of enzymes according to the 1972 Recommendations of the IUPAC. It is quite unnecessary to mention the outstanding scientific and practical value of this new edition.

D.A. Kalbhen, Bonn

Book Reviews


This book is devoted to the timely topic of drug interactions. Since the simultaneous treatment of patients with two or more drugs is increasing the hazards resulting from drug interactions are
increasing too. On the other hand, there is a lack of knowledge regarding potential drug interactions as well as a gap of information under prescribing physicians regarding known drug interactions. The appearance of a book dealing solely with this theme should therefore be welcome to many readers. The 14 chapters of the book are compiled by 21 experts from Europe and the United States. Following 2 short introductory chapters, various aspects of drug interaction are discussed, such as methods of study of drug interactions, pharmacokinetic aspects, drug interactions resulting in loss of action, drug interactions in the gastrointestinal tract, in cardiovascular therapy, in respiratory disease, in the management of infections, and in the kidney, narcotic analgesics and drug interaction, and drug interaction in general practice; 2 shorter concluding chapters deal with problems of detection of drug interactions and of information about drug interaction.

K. Karzel, Bonn

This book contains 16 main lectures given at the 4th International Symposium on Medicinal Chemistry which was held at Noordwijkershout (The Netherlands) in September 1974. 10 further lectures and 32 short communications which were also presented at this symposium are not included in this volume. The topics treated range from biological and chemical phenomena of inflammation over biosynthesis, regulation, metabolism and functional activity of central monoamine transmitters to the chemistry and biocidal activity of 1,3-indandiones, the regulation of fibrinolysis and the action of antithrombotic drugs, the chemotherapy of parasitic diseases, and finally relationships between chemical structure on the one hand and toxic actions or pharmacokinetic processes on the other hand. The articles have mainly review character and they are printed with all figures, tables and references. Some of them are devoted primarily to medical problems, other ones more to chemical problems. Albert writes in his concluding remarks that it is a great difficulty to find the right proportion of ‘medicinal’ to ‘chemistry’ in symposia on medicinal chemistry and he states that this aim has been reached. The topics discussed are scattered, however, over a wide field. The book might be useful not only for the chemist but also for the pharmacologist if he is interested in one of the presented topics.

K. Karzel, Bonn

This paperback booklet appearing in the series Outline Studies in Biology deals in 7 chapters with various aspects of drug selectivity, such as definition and control of selectivity, the role of receptors, selectivity due to differences in distribution, selectivity due to biochemical or cytological differences and the loss of selectivity. The book is addressed to advanced students of biological science as an introduction to a circumscript field of research. It intends to fill the gap between introductory textbooks and review articles or the original literature. This aim is certainly reached and for this purpose the booklet can be recommended to the mentioned readers.

K. Karzel, Bonn

Book Reviews 95

P. A. van Zwieten: Antihypertensive Drugs with a Central Action. Fischer, Stuttgart 1975. VIII + 63 pp., 31 fig.; DM 38.-.
This is the first issue of the first volume of the new series Progress in Pharmacology. This series intends to present and discuss topical problems of pharmacology in form of individual contributions with review character. Each monograph is to be published as a single issue. The present article deals with various aspects of centrally acting antihypertensive drugs, such as the etiology of hypertension and the target organs for antihypertensive drugs, experimental
techniques for the study of antihypertensive drugs, structure-activity relationships and the mode of action or the clinical use of antihypertensive agents. This comprehensive review is an up-to-date account of the state of knowledge in this field; it will be of interest not only for pharmacologists but also for all clinicians engaged in the management of hypertension.

K. Karzel, Bonn

G. Nahas and K.E. Schaefer (eds): Carbon Dioxide and Metabolic Regulations. Springer, New York 1974. XXXV + 372 pp., 209 fig.; DM 103.50/US $ 45.00. This monograph represents a systematic treatment of the primary role of CO2 in biological regulations. It is based on the proceedings of a Satellite Symposium of the 25th International Congress of Physiological Sciences, held in Monte Carlo, Monaco, 1971. The book is divided in 6 parts. Part I deals with carbon dioxide and pH regulation of basic metabolic processes (4 papers). Part II (6 papers) gives a synopsis of carbon dioxide and pH regulation of cellular functions. The next chapter (III) helps to understand the various relationships between carbon dioxide and pH effects on the one hand and oxygen and carbon dioxide transport on the other. Part IV (7 papers) gives a view about the regulation of organ function by carbon dioxide, and part V deals with adaptation to carbon dioxide in regard to the regulation of ventilation in chronic hypercapnia, respiratory gas exchange during and after maximal work, and hypocapnia. In the last chapter (VI) mathematical models for carbon dioxide regulation are interpreted as well as regulation by ventilation, the behavior of CO2 stores of the body during unsteady states and the study of energy metabolism. Of special interest is a paper by Fenn entitled CO2 and the Sea, the last written by one of the most distinguished physiologists of our time. The book is the first in a new series Topics in Environmental Physiology and Medicine. It is of relevance to all experimentalists and clinicians working in respiratory regulation.

G. Hack, Bonn

A. Mangeot et J. Poisson: Notions de pharmacie galénique; 2e éd. Paris 1974. XII + 221 pp., 49 fig., 8 tab.; 48 FF. This book is the 2nd edition of an introduction to galenical pharmacy. The authors describe the basic components of medicaments, the routes of administration of drugs, the essential pharmaceutical procedures, such as division, distillation, desiccation, sterilisation, etc., the various types of remedies, the control of drugs; at the end, a short account on the development of drugs is given. The short but quite instructive text is supplemented by numerous figures. The didactically well-written book can be recommended to students of pharmacy.

K. Karzel, Bonn

Book Reviews

96

Hirtz, J. (ed): The Fate of Drugs in the Organism. A Bibliographic Survey, vol. 1. Dekker, New York 1974. XV + 579 pp. This book compiled by a working group of the French Society for Pharmaceutical Science and Technology is a general bibliography on the fate of drugs in the organism. The first part of the book (295 pp.) consists of a non-classified list of 3,000 references with the complete title of the paper, the names of the authors and the bibliographical data. The second part (nearly 250 pp.) contains analytical tables for the drugs quoted in these references. In this part, the drugs are arranged in alphabetic order (as far as possible by their common names) and in the tables for the individual drugs, the reference number(s) according to the first part, the year(s) of publication of the article(s), the number of cited papers and hints on the content according to a list of 17 key words (such as absorption, distribution, excretion, etc.) are given. The third part (about 30 pp.)
contains an empirical formula table which might aid in finding the names used in the analytical tables. This volume which is to be followed by further volumes with the same design will be certainly a great help for literature search in the field of pharmacokinetics.
K. Karzel, Bonn