

## REVIEWS

**Pharmaceutical Microbiology, 2nd Ed.** Edited by W. B. HUGO and A. D. RUSSELL. Blackwell Scientific Publications. Osney Mead, Oxford OX2 0EL, England. 1980. 352 pp. 15 × 23 cm. Price \$26.75 (soft cover).

The editors of this book state that: "Pharmaceutical microbiology may be defined as that part of microbiology which has a special bearing on pharmacy in all its aspects." "As this book is aimed at undergraduate pharmacy students (as well as microbiologists entering the pharmaceutical industry) we were under constraint to limit the length of the book to retain it in a defined price range."

The 21 British authors are from universities and medical schools (11 contributors), industry (nine), and government laboratories (one). The book is divided into four parts: Biology of Microorganisms, Antimicrobial Agents, Microbiological Aspects of Pharmaceutical Processing, and The Future.

In Part I, bacteria, molds and yeasts, and viruses are treated in brief chapters with sufficient detail for the purpose of this book.

Part II constitutes one-half of the book and considers the manufacture of antibiotics and immunological products, the evaluation and properties of antibiotics, disinfectants, antiseptics, and preservatives, and quality control of immunological products.

The ecology of bacteria in an industrial environment, the theory and practice of sterilization, spoilage of pharmaceutical products, and sterility testing are discussed in Part III.

Part IV is a one-page review of the outstanding problems in the fields covered in the book. Most of the references are to British journals.

The brief account of microbiological assays for antibiotic substances is a decade or two out of date with regard to both theory and practice. The nonexistent second edition of "Analytical Microbiology" was given as a reference instead of the correct citation of Volume two.

In addition to its intended audience, the book is recommended to those in the pharmaceutical industry who need a brief introduction to a very broad subject. It enables administrators to learn what their scientists have done and are or should be doing. This book is a handy general reference to the multitudinous aspects of microorganisms and antibacterial agents and their interactions. It could be as useful to those outside the pharmaceutical industry as to those inside.

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**Concepts in Drug Metabolism, Part A.** Edited by PETER JENNER and BERNARD TESTA. (Drugs and Pharmaceutical Sciences, Vol. 10.) Dekker, 270 Madison Ave., New York, NY 10016. 1980. 409 pp. 15 × 23 cm. Price \$49.50.

"Concepts in Drug Metabolism," in two multiauthored parts, presents a wide ranging collection of essays on major topics in drug metabolism and allied fields which reflect the viewpoints held by the experts in the field.

The contents of Part A are divided into seven chapters which deal with the following topics: the significance of analytical techniques in drug metabolism studies; a structural approach to selectivity in drug metabolism and disposition; mechanisms of oxidative functionalization reactions; conjugation reactions; the role of extrahepatic metabolism in drug disposition and toxicity; developmental implications; and the use of metabolite data in the evaluation of pharmacokinetics and drug action. Because each chapter was written by a different author, some overlap between the contributions has occurred. According to the editors, the authors were requested to present the reader with a wide ranging and conceptual approach to each topic. As a consequence, the chapters tend to reflect the personalities and views of the authors. The reader will find that some chapters are quite philosophical in their approach, while other chapters make use of large bodies of factual information to illustrate the underlying concepts.

"Concepts in Drug Metabolism" complements well Volume 4 of the Drugs and Pharmaceutical Sciences series, which was entitled "Drug

Metabolism: Chemical and Biochemical Aspects" (1976) and was written by Testa and Jenner. Graduate students and researchers in drug metabolism in the fields of pharmacology, medicinal chemistry, toxicology, and biochemistry will find the book to be a valuable guide as well as an important source of new ideas. There are several drawbacks. With few exceptions, Part A represents a review of the literature prior to 1978. The book was published in 1980 and represents a gap of 2 years in the literature. Furthermore, although the two-volume set, in combination with the earlier book by Testa and Jenner, would make an excellent text for a graduate-level course in drug metabolism, the cost of the books tends to be prohibitive.

Part A presents an authoritative overview of vital topics and developments in drug metabolism and related areas and is highly recommended.

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**Iatrogenic Diseases, 2nd Ed.** By P. F. D'ARCY and J. P. GRIFFIN. Oxford University Press, 200 Madison Ave., New York, NY 10016. 1980. 546 pp. 18 × 24 cm. Price \$67.50.

The first edition of this text appeared in 1972. Other than Moser's "Diseases of Medical Progress" and "Drug Induced Diseases" by Meyler and Peck, published in 1972, there are no comprehensive books that cover adverse reactions from the perspective of this text. The book contains 26 chapters and two appendixes. The chapters are arranged by body system or site (*i.e.*, skin disease, blood dyscrasias, renal disease, and disorders of the eye).

There is a chapter on teratogenic and other possibly harmful effects of drugs in pregnancy, a chapter on drugs excreted in the breast milk, and a table of drug interactions.

The introductory chapters provide concise and informative overviews of the monitoring and epidemiology of adverse drug reactions. All major adverse reaction surveillance programs are described, and the major outcomes are highlighted. Types of reporting are categorized in an interesting and useful manner (*e.g.*, drug-oriented monitoring, disease-oriented monitoring, complication-oriented monitoring, monitoring children, and monitoring geriatrics). A well-designed tabulation provides the reader with virtually all of the studies of adverse reactions in hospitalized patients from 1964 through 1977. A nicely worded and concise description of various factors (*e.g.*, sex, age, genetics, and disease states) that may adversely affect patient responses to drugs is presented.

Each chapter is written in a crisp, authoritative, and comprehensive manner. Useful details on the pathophysiology of many drug-induced adverse reactions are presented in a logical and succinct manner. Each chapter is well referenced, apparently up through some portion of 1978.

The index is extensive, providing the reader with cross-referencing to adverse effects by drug, specific adverse effects, and broad general categories. One disadvantage to many American readers is the lack of cross-referencing of British drug names. For example, pethidine, paracetamol, rifampicin, and sulphafurazole are not cross-referenced to their U.S. counterparts (meperidine, acetaminophen, rifampin, and sulfisoxazole, respectively).

The reader will not find this book to be an encyclopedic review of adverse reactions, such as is afforded by Meyler and Herxheimer in their unexcelled offering, "Side Effects of Drugs." However, its unique approach and crisp style make it an invaluable addition to the bookshelf of the practitioner. It fills a void not covered by any other reference book of current vintage.

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