decrease in the chemical literature in this area.

As in the preceding volumes, the emphasis is on syntheses and reactions of the various classes of compounds. The liberal use of structural formulas and reaction schemes is an invaluable aid to the user of these volumes. Like its predecessors, this volume serves as a well-organized source of much valuable information on general aliphatic chemistry and on aliphatic natural products.

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Physiologic Disposition of Drugs of Abuse. By LOUIS LEMBERGER and ALAN RUBIN. Halsted, 605 Third Ave., New York, NY 10016, 1976. 401 pp. 16 × 23.5 cm. Price $29.50.

This book contains 10 chapters. The first chapter describes the fundamental principles of drug disposition. The absorption, distribution, and *in vivo* and *in vitro* metabolism of drugs of abuse are described in Chapters 2–9. The 10th chapter deals with the phenomenon and mechanism of tolerance.

The drugs of abuse discussed include amphetamine, mescaline and related phenylalkylamines, LSD and related indolealkylamines, morphine, morphine substitutes, barbiturates, methaqualone, caffeine, nicotine, alcohol, the cannabinoids, cocaine, and miscellaneous drugs including volatile solvents.

Numerous scattered papers and reviews concerning the physiologic disposition of drugs of abuse are summarized in the book. Chemical structural illustrations are used to demonstrate the metabolic pathways of drugs. These illustrations help readers to understand the process of biotransformation of the drug. There is no doubt in the reviewer's mind that this book will be of value and benefit to pharmacologists, psychiatrists, psychologists, and those in basic and clinical fields, especially graduate students and research associates beginning research in fields related to drugs of abuse. The extensive, up-to-date bibliography is very helpful.

It would be nice if a chapter on tranquilizers, especially benzodiazepams, was incorporated in this book.

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Drug Regulation and Innovation: Empirical Evidence and Policy Options. By HENRY G. GRABOWSKI. American Enterprise Institute for Public Policy Research, 1150 17th Street, N. W., Washington, DC 20036, 1976. 82 pp. 15 × 23 cm. Price $3.00.

This book sets out to prove that there is a drug lag in the United States due to governmental regulation of the pharmaceutical industry. It must be seen as an attempt to convince readers of this lag by citing portions of several economic studies. The first five chapters examine various aspects of the effects of regulation on the pharmaceutical industry, and the final chapter presents some suggested policy modifications to rectify the supposed "drug lag."

The book, which is very one-sided, failed to convince the reviewer of the seriousness, or even existence, of the problem. There is a citation that U.S. doctors sent patients abroad for treatment in order to use a drug not available here. This statement is supported by a single citation indicating TWO such examples,

The tone of the work is evident in a quotation from the forward, written by Professor Yale Brozen: "A small step in this direction would be to eliminate the FDA's power to require substantial evidence of effectiveness" (p. 7). Essentially, the argument is made that the United States is falling behind in the number of new chemical entities first developed and/or introduced in this country and that this problem is related to the 1962 amendments to the Federal, Food, Drug, and Cosmetics Act. Arguments for the value of some drugs include their sales and market share abroad. The market test is hardly a valid indicator of the value of a product, and it is perplexing that economists choose to use this argument. No one would deny that each of 80 different penicillin derivatives could be useful individually, but more subject to controversy is whether we have a "drug lag" at all if analogs of existing products are not on the U.S. market.

It is argued that the 1962 amendments will decrease U.S. prestige, harm our foreign balance of payments, and decrease support of academic pharmacology. Yet these arguments are unsupported. Surely the author must have considered factors encouraging foreign research such as the corporate tax structure, foreign profit repatriation rules, and relative labor costs. We come across the statement that the pharmaceutical industry is of above-average riskiness (p. 40). While this may be so for individual products, Barges and Hickey and others have refuted this argument. Easing of FDA regulation and earlier releasing of drugs with greater surveillance after marketing are proposed.

It is no great shock to this reviewer to see that researchers and investors in foreign lands have had successes as we have had. Also, one might argue that the availability of fewer new products is less potentially confusing to prescribers and that competition from products having expired patent protection should help to reduce prices. It seems that in this book conclusions are made repeatedly that are far broader than merited by the findings. The author dismisses arguments about decreases in the number of new product introductions in other countries and points made by government officials if they do not coincide with his hypothesis. This reviewer was expecting a much more even-handed treatment of the subject than he found.

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Antibiotics. A Critical Review. Edited by W. KURYLOWICZ. Polish Medical Publishers, Warsaw, Poland. Distributed by the American Society for Microbiology, 1913 I St., N.W., Washington, DC 20006, 1976. 204 pp. 17 × 24.5 cm. Price $6.00.

This book by four Polish authorities in the field attempts to compress the subject of antibiotics into about 200 pages. There is a short introduction as well as a brief section on classification, but the bulk of the book is devoted to two sections. Antibiotics in Microbial Metabolism deals with the biosynthesis and mode of action of antibiotics, and Antibiotics as Therapeutic Agents discusses the pharmacology and therapeutics. A great deal of condensed information is included in this book, which is both its strength and its weakness.

The section Antibiotics in Microbial Metabolism is the most useful. Structural formulas and diagrams are plentifully used in a valuable overview of this complex area. The section Antibiotics as Therapeutic Agents is less successful. Here the abridgement combined with the desire to be comprehensive, even to the point of presenting the principles of drug–protein binding and pharmacokinetics, each in a few pages, creates significant problems. A large number of drugs, some of only minor clinical interest in the United States, are dealt with summarily and important omissions occur. There is no mention, for instance, of colitis as a toxic side effect of clindamycin or of cardiomyopathy as a toxicity of the anthracycline antibiotics.

The book contains a substantial number of misprints, most of which are trivial, but some are more problematic; for instance, on page 97 there is a reference to Table 1 which, I think, though I cannot be sure, is a reference to Table 4–3.

In summary, I feel that these authors have made an admirable attempt to review an enormous amount of information in a small book. The result is a valuable introduction to the subject of antibiotics and a useful adjunct to other texts, but it would be unwise to rely on it as a sole source of information about these compounds.

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Lipid Chromatographic Analysis. Vol. 2. Edited by GUIDO V. MARINETTI. Dekker, 270 Madison Avenue, New York, NY 10016, 1976. 400 pp. 15 × 23.5 cm. Price $34.50.

This text contains five chapters covering compounds that, in the broadest sense, can be considered as lipids. The chapters cover TLC of sterols and steroids, GLC of bile acids, chromatography of prostaglandins,