

organisms is readily acknowledged. Thus, a good series designed to bridge this gap is an admirable goal. Unfortunately, the author has chosen as his primary audience undergraduate medical students and physicians and only secondarily tried to "provide students in all areas of mammalian biology with a source of information on the biochemistry of the mammals that is not otherwise currently available in textbook form."

A book reviewer for the *Journal of Medicinal Chemistry*, after reading this volume, thus finds himself in the position of commenting on its merit (and by extrapolation on the projected series) for medicinal chemists, when in fact it was designed for a radically different audience. Succeeding commentary, wherever negative, should be viewed in that context.

The initial 14 chapters cover the general chemistry, biosynthesis, and metabolic fate of fatty acids, sterols (especially cholesterol), glycerides, and sphingolipids. Large portions of many of them are of minimal use to a biochemically grounded, medicinal chemist. A slow pace is further accentuated by extended large layouts of sequential transformations (*e.g.*, six whole pages are expended on acetyl CoA \rightarrow squalene and a full page is used for a large diagram of phosphatidylcholine). Scientists other than medical students might do well in disregarding the authors' admonition that "the book is designed for sequential reading only" and at most read selected sections of these chapters.

Chapters 15-25 contain the meat of the book for the medicinal chemist. Subjects such as Lipoproteins, Digestion and Absorption of Lipids, Fate of Dietary Lipids, Fat Mobilization, Interrelation Between Lipid and Carbohydrate Metabolism, Lipid Metabolism During Exercise, Lipid Metabolism During Cold Exposure, Obesity, Fatty Liver, Role of Lipids in Cardiovascular and Respiratory Physiology and Pathology, and the Function of Lipids in Membranes of Mammalian Cells are treated in lucid discussions, which include specific mention of up-to-date theories and concepts. The author helpfully sets these in perspective and indicates over-all directions for future research. While these chapters make no pretense of encyclopedic coverage of their subjects, each of which is suitable for a monograph in itself, they provide a suitable base on which the medicinal chemist can initiate further study of special areas. The author has wisely provided general references grouped according to specific topic at the end of each chapter. Most of them are of post-1960 vintage and a remarkably high percentage date from 1967 and 1968 for which the author and publisher both are to be congratulated.

This book is well written, attractively printed on good paper, well bound, and quite free of misprints. It sells at a very nominal price, perhaps because of its intended textbook usage. The contents are pertinent to specific areas of great interest to the medicinal chemist such as obesity, diabetes, and atherosclerosis and of general relevance to so many others that it has a definite place in a typical medicinal chemistry department library. In spite of its originally intended audience, the whole series appears worthy of detailed examination and perhaps purchase.

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Proving New Drugs—A Guide to Clinical Trials. By BEN-ZION TABER. Geron-X, Inc., Los Altos, Calif. 1968. xi + 182 pp. 15.8 \times 23.5 cm. \$12.00.

This is a useful little book for clinical pharmacologists and other medical specialists whose concern is the trial of new drugs in man. As an introduction, there are a few brief pages on testing in animals, but then the discussion plunges into clinical testing: the planning, the application of statistics, the moral questions confronting the investigator, the consent of the patient, and the compliance with FDA regulations. The second section of the book enlarges on the same topics in more depth. The last 66 pages concern very practical matters: the filing of an IND (Notice of Claimed Investigational New Drug Exemption), the recording and disposition of actual observations, the preparation of conclusions, and the filing of the NDA (New Drug Application Form). These requirements are richly illustrated and should be of use to all clinical investigators and drug company administrators.

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Anabolic Steroids. Edited by H.-L. KRUSKEMPER. Translated by CHARLES H. DOERING. Academic Press, New York, N. Y. 1968. vii + 236 pp. 15 \times 23 cm. \$12.50.

This book represents an excellent translation by Charles H. Doering of Kruskemper's "Anabole Steroide" published in 1963. A number of reviews have been written on anabolic steroids, but this represents the first book on the subject. The author has concisely surveyed the extensive research carried out in the 1950's to separate the anabolic and masculinizing properties of the androgens. It is well written and relatively free of errors.

Because of his own background and interests, the book is heavily oriented toward the biological and clinical aspects of the subject. The introductory chapter on nomenclature and chemistry is handled well, but will be too sparse for most medicinal chemists. One of the highlights of this chapter is a table compiling names of the modified androstanes and 19-norandrostanes synthesized and tested for their anabolic properties. Although it is by no means complete and is now at least 5 years out-of-date, it nonetheless represents an excellent resume of the types of structures that have been investigated. In addition, the author is to be complimented for his utilization throughout the text of systematic IUPAC nomenclature except for the more frequently employed trivial names such as methyltestosterone.

Medicinal chemists will be disappointed at the brevity of the chapters on metabolism and mechanism of action. In defense of the author, however, these chapters by-and-large describe the current status of research in these areas despite the efforts of the last few years. Nonetheless, the researcher in this field will need to supplement this text with some of the more recent reviews concerned with the mechanism of action of steroid hormones at the molecular level.

The remaining two-thirds of the book is devoted to biological activities, clinical application, and side effects. In contrast with the above sections, these chapters are treated in an exhaustive and thorough manner. The section on side effects will be of particular interest to the medicinal chemist because it is primarily the propensity of anabolic steroids to cause liver damage as well as virilization that has limited the widespread clinical use of these agents.

While this book is geared primarily to the interests of the endocrinologist and clinical researcher, a number of steroid chemists will find some sections worthwhile reading. Although it is true that interest in the synthesis of new anabolic steroids has declined considerably in the last few years, this book is highly recommended for those chemists still active in the field.

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Progress in Drug Research. Volume 12. Edited by E. JUCKER. Birkhäuser Verlag, Basel. 1968. 479 pp. 24 \times 17.5 cm. Fr./Dm 118.

In this well-known and widely accepted series of monographs on all medicinal aspects of disease, the present volume occupies an unusual position. It starts out with a review of the contributions of medicinal chemistry from 1935 to the present, by C. J. Cavallito. The author has succeeded admirably to condense the explosive growth of drug therapy during that period into 22 pages. However, the remaining 11 pages are devoted to sociopolitical views and economical and funding aspects of medicinal research, and, very unfortunately, to U. S. Congressional attacks on the pharmaceutical industry. These pages should not have incorporated the unsavory memory of vitriolic confrontations with vote-hungry politicians which barely reflect credit on the American scientific scene, or on the parliamentary process of government.

The second controversial article is a synopsis of "rheumatery" (antirheumatic agents) by W. Moll (in German). The hundreds of medicinal chemists working in this area will be nonplussed to find that 20 out of 120 pages are devoted to psychopharmacological drugs which might be used in various ways as adjuncts in arthritic conditions. The inclusion of this section and one on the economics of antirheumatic drugs appears to signal a derailment of pertinence which, if continued, will detract from the scientific value of this review series. It is to be hoped that the intrusion of nonpertinent scientific and biased