

Book Reviews

Progress in Biochemical Pharmacology. Volume 4. Recent Advances in Atherosclerosis. Edited by C. J. MIRAS, A. N. HOWARD, and R. PAOLETTI. S. Karger A. G., Basel, Switzerland. 1968. viii + 636 pp. 17.5 × 25.4 cm. \$36.50.

The publication being reviewed is a compilation of the papers presented at the International Symposium on Atherosclerosis, Athens, 1966, organized by the European Society for Biochemical Pharmacology. Volume 4 of "Progress in Biochemical Pharmacology" is divided into the following sections: Epidemiology, Intact Organisms, Lipoproteins, Plasma Lipids, Whole Artery, Tissue Cultures, Hormones, Primates, Non Primates, Platelets, and Clinical; the discussions which followed each session are reported and references accompany most of the papers which were updated by the authors at the end of 1967.

Several of the sections listed above are introduced by papers dealing with recent advances (advances, at least, as recent as the end of 1967) in the subject under discussion. This is a satisfactory approach and, considering the brevity of the papers, the subjects are covered extremely well.

Within the various sections, the following papers are outstanding for their clarity and instructiveness: Epidemiological Studies on Atherosclerotic Coronary Heart Disease: Causative Factors and Consequent Preventive Approaches, J. Stamler, *et al.*; Recent Advances in Metabolism of Plasma Lipoproteins: Chemical Aspects, P. Alaupovic; Lipid-Fatty Acid Relationships in Electrochromatographic Lipoprotein Fractions, H. Peeters and V. Blaton; Recent Advances in the Metabolism of Cholesterol, Lipoproteins, and Acid Mucopolysaccharides in Normal and Atherosclerotic Vessels, W. Holland, *et al.*; Cholesterol Ester Metabolism in Tissue Culture Cells, D. Kritchevsky, *et al.*; Estrogens and Atherosclerosis, R. Pick, *et al.*; The Cause of Cerebral Artery Thrombosis in Man, P. Constantinides; and Role of Endocrine System in the Regulation of Plasma Lipids and Fibrinogen, with Particular Reference to the Effects of Atromid-S, J. M. Thorp, *et al.* Although the only paper dealing with drug effects was given by Thorp, *et al.*, the medicinal chemist in antilipemic agent research will find much of interest in this collection of biochemical and pharmacological papers.

It is expensive, but, if the reader is interested in this field and there is room on the science library shelf, it should be squeezed in.

LEDERLE LABORATORIES
A DIVISION OF AMERICAN
CYANAMID COMPANY
PEARL RIVER, NEW YORK 10965

FREDERICK L. BACH

Biogenesis and Action of Steroid Hormones. Edited by RALPH I. DORFMAN, KAZUMI YAMASAKI, and MARGARET DORFMAN. Geron-X, Inc., Los Altos, Calif. 1968. v + 426 pp. 17 × 22 cm. \$8.50.

This volume represents a report of a symposium held at Kaike Spa, Yonago, Japan, in August 1967, which was sponsored by the Institute of Steroid Research, Tottori University School of Medicine, and hosted by Professor Kazumi Yamasaki, Founder of the Institute.

It presents authoritative views in steroid biochemistry, particularly in the areas of steroid hydroxylations, side-chain cleavage, and sulfo-conjugations. Because of the broad coverage represented by the numerous recitations, the contents is a conglomerate of both new work and review articles. The volume, which covers some 426 pages, could have been considerably shortened if many of the graphs and charts were condensed and presented in a less generous fashion. The editors, however, have obviously taken pains to minimize errors particularly inherent in this type of offset press presentation. The use of the type-offset press facilitates more rapid and less expensive publication, but, as usual, because of the variations in typing formats, there is complete lack of uniformity, most importantly in the presentation of references. The discussions which follow

some of the papers are minimal, as is the contribution of this type of highly edited communication.

All in all, the book makes for easy reading, but, as usual, much of the work had already been published or has found its way into the literature by the time of publication. However, because of the relatively low cost of this volume and the contributory nature of the review articles, it is a welcome addition to the library of those interested in the broad subject of the biogenesis and action of steroid hormones in various tissues, both *in vivo* and *in vitro*.

SOUTHWEST FOUNDATION FOR
RESEARCH AND EDUCATION
SAN ANTONIO, TEXAS

LEONARD R. AXELROD

Annual Review of Pharmacology. Volume 9. Edited by H. W. ELLIOTT, W. C. CUTTING, and R. H. DREISBACH. Annual Reviews, Inc., Palo Alto, Calif. 1969. 591 pp. 16.3 × 23 cm. \$8.50

In every volume of this series, Professor Chancey D. Leake writes a brief but searching section entitled Review of Reviews. This year's article points up the widening gulf between molecular and clinical pharmacology which has already led to such tragic consequences as the abandonment of autonomous pharmacology departments in some American medical schools. Both the molecular and clinical pharmacologists are to blame for this condition: they have shown disregard either for the applications of pharmacology to the health professions and services beyond medicine, or to the need for more basic knowledge of drug action. It is for these reasons, if for no other more specific ones, that the Annual Review volumes should be read and studied by *all* those concerned with the biochemistry, physiological manifestations, and the clinical and toxic behavior of drugs.

The present volume features a personal and scientific autobiography by J. H. Burn. He became a pharmacologist because "compared with those who taught physiology and physics [at Cambridge], the chemists were an unattractive lot . . . , they seemed very undistinguished, had cheerless faces and wore rather shabby clothes." Little credit is given the chemists for providing Burn throughout his life with the compounds he worked with, or with developing scientifically acceptable explanations of the molecular action of drugs since, after all, the most common way molecules react is to affect other molecules, not tissues.

The 26 remaining chapters run the gamut from the chemotherapy of leprosy to the toxicology of ethanol, with considerable emphasis on hormonal and pharmacodynamic problems under active investigation. Of interest to chemists are reviews on isolation techniques of animal hormones and on natural products from plants which increase non-specific resistance. The whole volume is well presented, well edited, and as up-to-date as book production permits.

UNIVERSITY OF VIRGINIA
CHARLOTTESVILLE, VIRGINIA

ALFRED BURGER

Psychopharmacology. A Review of Progress, 1957-1967. Edited by DANIEL H. EFRON, JONATHAN O. COLE, JEROME LEVINE, and J. RICHARD WITTENBORN. Public Health Service Publication No. 1836. U. S. Government Printing Office, Washington, D. C. 1968. xvi + 1342 pp. 21.7 × 26.5 cm. \$11.25.

The tremendous growth of the theories and applications of psychopharmacology since the mid-1950's led the National Institute of Mental Health to support a summary symposium of the American College of Neuropsychopharmacology which was

held during—the elsewhere cold—December of 1967 in San Juan, Puerto Rico. The large volume under review constitutes a set of papers presented at this meeting but the editors have tried to include references, tables, and other material which should make this book a “permanent hand book for everyday use.” Contributors came from university, hospital, government, and industrial laboratories. Indeed, this reviewer could not find a suitable reviewer candidate in the field who was not also an author in this large volume.

The table of contents is so comprehensive that anyone working in neuro- or psychopharmacology will find a chapter of interest to his specific needs. The introductory section deals with neurotransmitters and neuroreceptors. Specific types of drugs treated include antineurotic, antidepressant, antipsychotic, and psychotomimetic agents, drugs affecting memory, behavior, and learning, and finally alcohol and addictive narcotics. There are extensive discussions of electroneurophysiological indicators of drug action, of the toxicology of psychopharmacological drugs, and of research in patients and its ethical and legal implications. The papers reach all the way from fundamental and detailed biochemistry to the less concise levels attainable in the mental clinic.

The hundreds of investigators now interested in psychopharmacology will barely be able not to afford to have this important collection of first-class research reviews on their workbench, or near their analytical couch, especially at the low price provided by the U. S. Government Printing Office.

UNIVERSITY OF VIRGINIA
CHARLOTTESVILLE, VIRGINIA

ALFRED BURGER

Principles of Radiological Health. By EARNEST F. GLOYNA and JOE O. LEDBETTER. Marcel Dekker, Inc., New York, N. Y. 1969. xviii + 473 pp. 23.5 × 16 cm. \$14.50.

As experiments with radioactive isotopes became more common in mechanistic and metabolic studies, the practitioner will become more aware of radiation exposure and its hazards to his health. Likewise, the patient receiving radioactive drugs must be protected from radiation damage. Theories and practical aspects of damaging radiation are treated in this book on a level useful for graduate students or as a reference volume. The introductory chapters about atomic structure with emphasis on nuclides and isotopes, radioactive processes and decay, and the physical interaction of radiation with matter orient the reader about the background of the main topics to be tackled. These include the dosage of radiation, its calculation, detection, and statistical measurements, and good descriptions of the techniques involved. The effects of ionizing radiation on solids, liquids, gases, and biological systems are treated in an extensive chapter; so are methods of disposal of wastes and of preventing radioactive contamination, a good feature for anyone working under an AEC license. Radiation protection methods, shielding operations, protection from X-ray damage, and a brief discussion of hazards of nonionizing radiation, so often overlooked, conclude the volume. Several appendixes contain numerical data in tabular form, useful for the calculations found in the body of the book. Each chapter is amply referenced, and there are author and subject indexes.

UNIVERSITY OF VIRGINIA
CHARLOTTESVILLE, VIRGINIA

ALFRED BURGER