

Book Reviews

Annual Reports in Medicinal Chemistry, 1965. Sponsored by the Division of Medicinal Chemistry of the American Chemical Society. Editor-in-Chief, CORNELIUS K. CAIN. Academic Press Inc., New York and London. 1966. ix + 342 pp. 20 × 18 cm. \$7.50.

This is the first of a long-awaited series of reports designed to keep medicinal chemists up-to-date on what happened in every important branch of their field about 1 to 2 years before publication date. The book has been produced in paperback form by a photo-offset process, and this has reduced both the price and the usual time lag between submission of manuscript and publication. The Division has spared no effort to draw upon its most expert and productive members for authorship of the 31 review articles; in turn, these articles have been arranged in six sections sub-edited by prominent scientists. The sections are CNS, pharmacodynamic, and chemotherapeutic agents; metabolic diseases and endocrine functions; and topics in biology and in chemistry.

The individual articles are clear, concise, critical, and instructive. With the exceptions of the Topics in Chemistry, they discuss the core of medicinal researches from a biochemical, biological, and therapeutic point of view. However, they are slanted toward the chemist, and this makes reading of the whole volume truly enjoyable.

By definition, a bargain is "getting the most for the least money." Any reader of this volume will agree that he is getting here the most significant, well-presented, and carefully prepared review of all major medicinal topics in recent years, in an attractive form.

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ALFRED BURGER

Mechanisms of Release of Biogenic Amines. Proceedings of an International Wenner-Gren Center Symposium, Stockholm, 1965. Edited by U. S. VON EULER, S. ROSELL, and B. UVNÄS. Pergamon Press, Long Island City, N. Y. 1966. vii + 482 pp. 15 × 22.5 cm. \$20.00.

The difficulties of studying and understanding the biosynthesis, storage, and release of biogenic amines and ammonium compounds are formidable but the intense interest in this area has been attested by several recent symposia, the present one under review professing to emphasize the release of adrenergic, histaminergic, serotonergic, and cholinergic substances. However, release has become inseparable from the other phases, and the reader will find a conglomerate report on all stages in the 38 papers by the 106 participants. It is no surprise to find the two dozen top names among the contributors who appear on virtually every symposium on biogenic amines. Some of these world travelers recount here some of their more recent activities on short-range projects, while other contributors offer careful, more comprehensive, and critical reviews. There is much new detailed experimental work which undoubtedly has been or will be republished in standard journals. There are the inevitable discussions taken down by court stenographers or tape recorders and poorly edited by the participants. But the main theme of the survey pervades the book: the continuous flow from nutrient amino acid to the biosynthetic amine, coupled with the amine's storage and followed by its release, the conditions and stimuli that lead to its release, and the multifaceted significance of the release for subsequent biological happenings.

Both the participants in the symposium who could not possibly have attended all the sessions and the hundreds of investigators in the field who could not be present in Stockholm at all will read the papers of the symposium profitably and with pleasure.

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Progress in Drug Research. Volume 9. Edited by E. JUCKER. Birkhäuser Verlag, Basel. 1966. 414 pp. 24.5 × 17 cm. 88 sFr.

This volume starts with a chapter by H. J. Melching and U. Streffer in which a valiant attempt is made to review the voluminous literature dealing with radioprotective chemicals. Since, at this time, the mechanisms of action of most of these agents remain obscure, the main value of the chapter resides in its reasonably complete coverage of the literature.

In the second chapter K. Stach and W. Poldinger attempt to elucidate structure-action relationships of drugs used in psychopharmacology. Many of the correlations made are extremely interesting and should stimulate research workers dealing with this confusing and confused subject.

An excellent review of the chemotherapy of filariasis is presented by F. Hawking. The pharmacologically extremely important subject of 3,4-dihydroxyphenylalanine is reviewed by A. R. Patel and A. Burger; the coverage of the literature is excellent and up to date. This chapter should be most valuable to workers in this field.

The biliary excretion and enterohepatic circulation of drugs is covered by R. L. Smith. Since as the author points out "the relation between chemical structure and biliary excretion is imperfectly understood," only an empirical, but complete, collection of data could be presented.

The volume closes with a chapter by K. Wiesner and H. Fink dealing with metronidazol, a drug orally effective in the treatment of trichomoniasis.

The high standards of previous volumes of "Fortschritte der Arzneimittelforschung" have been maintained once again.

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HENRY G. MATTNER

Lipoido. 16th Mosbach Colloquium der Gesellschaft für Physiologische Chemie. Edited by E. SCHÜRRE. Springer-Verlag, Berlin and New York, N. Y. 1966. 169 pp. 20.5 × 13.5 cm. \$9.50 (paperback).

This little pamphlet contains twelve reviews on up-to-date observations and interpretations of the chemistry of lipids, the enzymes concerned with lipid metabolism, the biosynthesis of fatty acids, and functions of lipids in diseases caused by lipid derangements. New and even some previously unpublished findings are emphasized in all the articles. Among the topics are inositol lipids and other glycolipids (H. E. Carter; R. J. Rosser and F. B. Palmer; T. Yamakawa; H. Debusch), articles on substrates of phospholipase (R. M. C. Dawson), the biosynthesis of fatty acids (E. Schweitzer, D. Oesterheld, W. Chan, Ch. Diba, and F. Lynen), plasma lipoproteins (D. S. Fredrickson and R. L. Levi), steroids from feces (E. H. Ahrens), and disturbances of various forms of lipid metabolism (H. Zatzkewitz, W. Stoffel, and G. Schettler). The topics that will interest medicinal chemists mostly are those dealing with the biosynthesis of lipid materials since this forms the basis of the testing of antilipemic drugs. Equally important are the chapters on clinical observations on lipid metabolism and deposition. The classification of patients into two groups, those that develop atherosclerotic lesions due to faulty fat metabolism and those whose primary disturbance is carbohydrate utilization, should be of value in modifying much present thinking about ways to combat atherosclerosis. The tests reported to distinguish between these two types of pathogenesis will be a welcome contribution to the pharmacologic identification of the various causes of lipid deposits in the tissues.

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