

emphasis on fundamental drug action and drug metabolism. The selection of the authors has been noteworthy, for a high degree of excellence is observed in all of the chapters.

The time-honored classic, Goodman and Gilman's "Pharmacologic Basis of Therapeutics" has been published in the third edition. As in the case of Drill, the editors have relied on a number of contributors, each a specialist in their topic in the text. Drs. Goodman and Gilman have reviewed and edited each contribution, and, as a result, there is good continuity throughout the text. The former close relationship between pharmacology and therapeutics has been retained.

Krantz and Carr have continued to keep up-to-date their text on "The Pharmacologic Principles of Medical Practice." Starting in 1949, with the first edition, the sixth edition has now been published. In contrast to the two texts mentioned above, this book remains the product of two authors, however, using specialists to criticize and review the various chapters. The abbreviated and terse style has been retained in this edition.

The third edition of J. J. Lewis, "An Introduction to Pharmacology," was published in 1964. This text, as the name implies, does not have the extensive coverage of the other texts mentioned above; in fact, it is too brief to be considered for a text in a medical school course.

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Advances in Chromatography. Volume 1. Edited by J. CALVIN GIDDINGS and ROY A. KELLER. Marcel Dekker, Inc., New York, N. Y. 1965. xv + 392 pp. 16 × 23.5 cm. \$14.50.

This excellent first volume of what we hope is the first of many will be welcome on the desk of any chemist faced with the need to use chromatography in an intelligent way but without the time to survey the vast literature. The editors wisely charged their contributors to "... restrict their topics, if they desire, with no pretense of an all-inclusive coverage... to exercise their judgement... in selecting the significant papers." The result is a collection of chapters at once readable, comprehensible, and useful. Nearly everything written by experts is of use to workers in the field but this book not only fills the needs of those wanting authoritative reviews but also caters to the scientist who is an expert in other areas but who needs to be aware of the latest theory and techniques of chromatography as it applies to his problems. The topics seem to have been carefully chosen and should interest a wide audience. The emphasis is strongly toward the experimental aspects of chromatography. There is even a chapter devoted to the design of experiments to be used in teaching.

The book is divided into two roughly equal parts. The first part deals with what is called "General Chromatography" wherein there are chapters on "Ion-Exchange Chromatography," "Chromatography and Electrophoresis on Paper and Thin Films: A Teachers Guide," "The Stationary Phase in Paper Chromatography," and "The Techniques of Laminar Chromatography." Part two deals with various aspects of gas chromatography: "Qualitative and Quantitative Aspects of the Separation of Steroids," "Capillary Columns: Trials, Tribulations and Triumphs," "Gas Chromatographic Characterization of Organic Substances in the Retention Index System," "Inorganic Gas Chromatography," "Lightly Loaded Columns," and "Interactions of the Solute with the Liquid Phase."

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Second Symposium on Catecholamines. Edited by GEORGE H. ACHESON. Reprinted from *Pharmacol. Rev.*, **18**, 1 (1966). The Williams and Wilkins Co., Baltimore, Md. 1966. 803 pp. 25.5 × 18.5 cm. \$15.00.

This symposium was held at the Istituto di Ricerche Farmacologiche "Mario Negri" in Milan, Italy. The session chairmen were H. Blaschko (enzymology), C. Cori and M. Vaughan (metabolic effects of catecholamines), Marthe Vogt (measurement and

detection of catecholamines and related compounds), U. S. von Euler (properties of adrenergic tissues) who also surveyed the development of the field during 20 years of norepinephrine, J. H. Burn (adrenergic transmission), F. F. Shideman (modification of sympathetic function), A. Sjoerdsma (catecholamines and the circulatory system), and W. Feldberg (adrenergic mechanisms in the nervous system). The names of the symposium speakers read like a Who's Who in Catecholamines from all over the globe. The unusually large audience and number of participants attest to the importance attributed to the topics of the symposium.

For medicinal chemists interested in such varied fields as inhibition of the biosynthesis of the catecholamines, maintenance of amine storage levels, glycogenesis and glycolysis, lipid metabolism, cold adaptation, adrenergic transmission and receptor mechanisms, cardiovascular and neuro- and psychopharmacological agents affecting catecholamines, this symposium will be a veritable treasure grove of authoritative, up-to-date information. The articles have been prepared carefully and are well documented. Although some of them are in the looser form of lectures, most of the authors have edited their papers with diligence. The reader will, however, have to find his way to special topics the hard way since there is no index of any kind beyond the table of contents. This is probably due to the fact that the symposium reports have been reprinted from a review journal, but the editor should have arranged an index for the book edition. Nevertheless, this collection of papers will remain the best source of information on all facets of the chemistry and pharmacology of catecholamines until another symposium on these timely subjects can be arranged.

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Methods in Drug Evaluation. Edited by P. MANTEGAZZA and F. PICCININI, with 63 contributors. North Holland Publishing Co., Amsterdam. 1966. xii + 580 pp. 15.2 × 22 cm. \$16.80.

This book contains the proceedings of an international symposium held in Milan, Italy, in September 1965. It comprises 44 chapters, each dealing with a different pharmacological test method; in many cases, several methods, based on different concepts of action and presenting different techniques, are compared in one chapter. Thus, this symposium offers the widest scope of methods published in recent months [see, for example, *J. Med. Chem.*, **9**, 452 (1966); **8**, 894 (1965)].

Each participant in the symposium had been allotted 20 min for his paper. Judging from the lengths of the chapters in the book, some authors handed in the text of their lecture without much change; obviously only the highlights of the subjects could be touched in these cases. Many of the authors did, however, expand their manuscripts, adding statistical analyses, adequate theoretical background material, and pertinent literature references. In spite of this unevenness in distribution of emphasis, the book offers a good account of most of the major pharmacological testing methods. In some cases the novice will be able to use descriptions of experiments like those in a laboratory manual; in most cases the chapters will serve as excellent surveys of situations which will encourage reading in greater depth from other sources. The international character of the authorship offers a guarantee against provincialism of testing methods which has become, in several countries, a compromise between legal edicts of local health authorities and critical pharmacology.

Some chapters written by participants from pharmaceutical industries stress therapy-oriented test methods at the expense of fundamentals, but the personal experience of the authors with these methods should be a valuable and much sought-after asset of the book. In such elusive fields as teratogenicity and several psychopharmacological topics, animal experiments can paraphrase the facts of clinical testing at best. Often they are no more than artificial crutches upon which one has to lean until more meaningful test methods become available. In such cases the present chapters are apt to evoke controversy, but this should be stimulating to the development of clearer thinking and better experimentation.

There is an index of participating authors and a rather brief subject index.

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