The Structural Basis of Antibody Specificity. By DAVID PRESSMAN and ALLAN L. GROSSBERG. W. A. Benjamin, Inc., One Park Avenue, New York, NY 10016, 1968. xvii + 279 pp. 16 × 23.5 cm. Price $16.75.

This monograph is based on a series of lectures given for a special biophysics course at the University of Rochester. The text is a quantitative appraisal of research on the chemical nature of antibody specificity since the earlier studies described by Landsteiner. It may be used as a text for senior-graduate level courses on chemical immunology or immunochemistry, and also as a reference for those in the field. The book is written for the reader who has some knowledge of immunologic nomenclature. The text treats those structural features of haptens or antigens and of antibodies which provide the basis for their specific interaction. The first two chapters introduce the chemical concepts which are involved in antibody-antigen interaction. Chapter 3 discusses a large number of antihapten systems in terms of the structural details important for antibody-hapten combination. The remaining chapters discuss the basis of the heterogeneity of antibody molecules and the use of antibodies to map out structures of small and large molecules in aqueous solution. Liberal use is made of drawings of chemical structures with their names, and the bibliography and appendix give access to many studies of antihapten systems.

Staff review

Cell Physiology and Pharmacology. By J. F. DANIELLI. Hafner Publishing Co., Inc., 31 East Tenth St., New York, NY 10003, 1968. (originally published 1950). vi + 156 pp. 15.5 × 23 cm. Price $8.00.

On the first examination, the volume under review gives the impression of questionable worth. It appears unlikely that a slender book of less than 200 pages could give a comprehensive coverage of the vast field of cell physiology and pharmacology. Secondly, the book is based on lectures given at University College, London, almost two decades ago and originally published in 1950. The domain of cell physiology as enlarged by the fantastic advances in biochemistry and molecular biology in the last twenty years is now almost a qualitatively new one. My initial reaction, therefore, was, "What could we possibly learn about a vast field like cell physiology and pharmacology in a volume of less than 200 pages which was published twenty years ago?"

However, as I read the book, I found there was much that could be learned. The author established the premise underlying his discussion in the preface. He stated that in the development of drugs, the biological side of the process does not proceed in a rational manner. The chemist will synthesize an array of compounds which are then subjected to biological testing. If our biological knowledge of drug action were adequate, it would be possible to predict which compounds or modifications of a compound would be biologically active and perhaps 90% of the work assigned to the chemist would be unnecessary and eliminated.

The book is organized into six chapters bearing the following titles: The Cell as a Physico-Chemical Unit; Possible Actions of Drugs on Surfaces; Membrane Permeability and Drug Actions; Enzymes and Drug Actions; The Actions of Narcotics; Responses of Cells on the Biological Level.

In general, the chapters are well written and well organized. The emphasis is on principle and mechanism rather than the presentation of masses of data. Literature references at the end of each chapter are few and of course relatively old, that is, prior to 1950.

In the opinion of this reviewer, this volume is a valuable contribution and should be of interest to all involved in pharmacological research and teaching. Although the author does point out some examples of drugs for which the mechanism of action is somewhat known, he makes quite clear the point that we have a great deal of work ahead of us if we are ever to establish cell pharmacology as a science well enough developed to permit prediction of the action of chemicals on biological systems.

Reviewed by Joseph Judis
College of Pharmacy
The University of Toledo
Toledo, OH 43606

Studies of a Core Curriculum. Edited by M. R. GIBSON. American Association of Colleges of Pharmacy, 850 Sligo Ave., Suite 301, Silver Spring, MD 20910, 1968. 91 pp. 15 × 22.5 cm. Price $3.50. Paperbound.

This volume is a report of the Committee on Curriculum of the American Association of Colleges of Pharmacy and outlines what this Committee believes to be the basic core course content for pharmacy education. This report covers only those professional areas of pharmaceutical education—not prerequisites and liberal arts courses—which represent the basic core of information needed before specialization. No "how to" information is included, but merely what constitutes a complete professional curriculum. The five chapters of core course contents and the authors are: Pharmacognosy—Melvin R. Gibson; Pharmacology—Marvin H. Malone; Pharmaceutical Chemistry—Frank E. DiGangi; Pharmacy Administration—Raymond J. Dauphinias; and Pharmacy—August P. Lemberger.

Staff review

Topics in Pharmaceutical Sciences. Vol. 1. Edited by D. Perlman. Interscience Publishers, Inc., 605 Third Avenue, New York, NY 10016, 1968. 15.5 × 23.5 cm. ix + 136 pp. Price $7.95

This volume is a collection of papers presented at two symposia held during the 1967 annual meeting of the Academy of Pharmaceutical Sciences. The topics of the two symposia are "Penicillins and Cephalosporins" and "Effects of Hormonal Steroids on Cellular Processes."

Staff review