REVIEWS

Assay of Vitamins in Pharmaceutical Preparations. By MANZUR-UL-HAQUE HASHMI. Wiley, New York, NY 10016, 1973. 512 pp. 24 × 16 cm. Price $32.00.

This up-to-date (through 1971) compilation of methods will be of great benefit to anyone interested in the analysis of vitamins in pharmaceutical preparations. For the first time, all published methods are gathered into one volume with sufficient detail to allow analysis of vitamin products by the method deemed most suitable for the preparation being analyzed. A sufficient number of references are given for each type of determination in the event the analyst desires further information.

Each chapter deals with an individual vitamin with separate chapters for multivitamin preparations and for automated analysis. Critical evaluations of the methods are included together with brief discussions of the detail procedures. A separate chapter concerning the stability of vitamins in multivitamin preparations contains a very comprehensive bibliography on the subject. In all, the book covers 215 individual analytical methods for 18 different vitamins documented by more than 700 literature references, 44 figures, and 15 tables.

All USP XVIII methods for the analysis of vitamins have been included with appropriate references. Necessary modifications by different authors and critical opinion expressed in the literature about the USP procedures have been mentioned to inform readers about the latest developments. The British Pharmacopoeia and the National Formulary methods which differ from the USP procedures are also described.

This compilation of methods is recommended for all analysts interested in or involved with the analysis of vitamin preparations.

Reviewed by C. T. Kenner
Southern Methodist University
Dallas, TX 75275

Drug Design, Volume IV. Edited by E. J. ARIENS. Academic, 111 5th Ave., New York, NY 10003, 1973. 489 pp. 16 × 24 cm. Price $35.00.

Those lured by the title into the hope that with this text on the drafting table they can proceed to design model compounds guaranteed to become drugs of choice should first turn to page 290. Here, in this excellent chapter on "The Design of Biologically Active Nucleosides," Alexander Bloch lists some two dozen parameters that would have to be known for each species in which the compound is intended for use "in order to proceed rationally" to design drugs, and warns that "even then we would probably have missed a variety of more complex parameters, and would still not be able to predict its (the drug's) most sensitive site of action." Bloch goes on, however, to demonstrate the versatility of the nucleosides, from the viewpoint of both structure and application.

In the next chapter, appropriately the last, the patient is the victim, the therapeutic aim is death, the undesirable side effect development of resistance to toxicity. Perverse as inclusion of this article on "The Design of Insecticidal Chlorohydrocarbon Derivatives," by G. T. Brooks might seem, it nevertheless is an interesting addition to the text, including theoretical considerations, detailed structure–activity data, and modifications to counteract detoxification.

Unfortunately, equal value cannot be claimed for the opening three chapters. The first, by Leslie Benet on "Biopharmaceutics as a Basis for the Design of Drug Products" elaborates the obvious. One can almost visualize the good professor wagging his finger as he patiently explains (page 4) that "quickly" means "rapidly." He also seems to suffer from the illusion that there is for most drugs a 1:1 correspondence between blood levels and clinical effect.

Sententiousness without substance characterizes W. A. Ritschel's next chapter on "Peroral Solid Dosage Forms with Prolonged Action." On page 48 he lays down the rule that "drugs having a biological half-life of 8 or more hours should not be used in sustained release preparations for peroral use," apparently unaware that drugs such as chlorpheniramine with a half-life triple his arbitrary limit require multiple daily doses to maintain therapeutic effectiveness. In the following chapter, Ritschel discusses "Parenteral Prolonged Action Dosage Forms" in journeyman fashion.

The succeeding two chapters on "Design of Topical Drug Products: Pharmaceutics," and "Biopharmaceutics" by Martin Katz and Boyd J. Poulsen, respectively, are companion pieces of the highest quality, very obviously written out of a wealth of experience. Skin anatomy and physiology, preparation of dermatological bases, clinical testing, factors controlling drug diffusion, *etc.*, are discussed with authoritative thoroughness.

All you ever wanted to know about "The Design of Sunscreen Preparations" is covered in the next chapter by G. W. Van Ham and W. P. Herzog. For a bonus the authors even throw in a few paragraphs on insect repellents.

That one percent of us are stone carriers we learn in the next chapter on "Litholytic Agents: Preventive and Curative Drugs for Nephrolithiasis" by G. Kallistratos. This chapter could have been strengthened with a bit of editing and reorganization of material.

One can hardly imagine E. J. Ariens, the editor, after assembling these nine chapters resting in the belief he had completed the definitive text on drug design. The unwritten chapters testify, not to any lack of wisdom on the part of the editor, but on the tentative nature of the topic.

Reviewed by S. S. Walkenstein
Smith Kline and French Laboratories
Philadelphia, PA 19101

Synopsis of Endocrine Pharmacology. By J. A. THOMAS and M. G. MAWHINNEY, University Park Press, Chamber of Commerce Building, Baltimore, MD 21202, 1973. x + 225 pp. 16 × 23 cm. Price $12.50.

The authors indicate that this book was written "to present an overview of the relationship between hormones that are normal constituents of the body in some instances and that are therapeutic replacements or diagnostic tools in other conditions." It is indicated in the book jacket that the book is designed for use by "medical and pharmacy students, graduate students in pharmacology, physiology, biochemistry, reproductive biology and zoology, animal husbandry, and veterinary medicine, and for all physicians, clinicians, biologists, and biochemists whose work requires a fast, concise review of the latest concepts of hormonal actions." Writing a synopsis of such a broad topic for use by such a wide range of students and investigators with such a wide variety of backgrounds is an ambitious undertaking to say the least.

The book contains 12 chapters relating to a diverse range of topics in endocrinology and endocrine pharmacology. Chapter 1 deals with the newly discovered hypothalamic-releasing factors and their potential therapeutic applications. Anterior and posterior pituitary hormones are treated separately in Chapters 2 and 3. Chapter 4 deals with carrier molecules and other factors concerned with hormone transport. Thyroid agents are discussed in Chapter 5 and parathyroid hormone in Chapter 6. Sex hormones (estrogens, androgens, and progestational agents) are reviewed in Chapters 7–9. Chapter 10 is concerned with the adrenocortical steroids. Insulin, glucagon, and hypoglycemic agents are covered in Chapter