literature are provided at the end of each chapter. Some helpful hints but no answers are given, however.

No doubt pharmacokineticists will differ with the author in some of her interpretations, but this should not be viewed as particularly unusual nor detrimental. No one, however, could argue with the avowed purpose of the book, which is "to bridge the gap between pure mathematical theory, at the one extreme, and the indiscriminate application of simple standard models to data that they may not adequately describe, at the other." To this end, the author has made a notable contribution. Researchers in pharmacology, toxicology, and drug metabolism will find it a valuable addition to their bookshelf.

Reviewed by Howard B. Hucker
Department of Drug Metabolism
Merck Institute for Therapeutic Research
West Point, PA 19486

Psychotropic Drugs. Plasma Concentration and Clinical Response. Edited by GRAHAM D. BURROWS and TREVOR R. NORMAN. Dekker, 270 Madison Ave., New York, NY 10016. 1981. 528 pp. 15 × 23 cm. Price $68.00 (20% higher outside the U.S. and Canada).

This book is well written and highly readable, with an avowed purpose of presenting all evidence, pro and con, of the relationship between plasma concentrations and clinical response of psychotropic drugs. Never mind that we have to wait until Chapter 5 before the question is first addressed—the preceding chapters are useful summaries of the mechanism of action, methodology, and pharmacokinetics of tricyclic antidepressants and antipsychotic agents.

If this puts the reader in a mood to skip around before settling down to read the book straight through, then he or she may as well read the last chapter first—a perceptive overview of the subject by Hollister. His rather pessimistic estimation of the value of measuring plasma concentrations may disappoint some readers, but be sure to judge his reasons fairly before dismissing his conclusions. We learn, for example, that the rationale behind measurement of plasma concentrations of antianxiety drugs has been for pharmacokinetics and not for monitoring treatment. This is corroborated in the chapter on benzodiazepines.

Perusal of the remaining chapters in this interesting book—on zimelidine, lithium, antipsychotic agents, butyrophenones, sedatives, hypnotics, and anticonvulsants—is revealing since, with only one exception, the various authors conclude that the relationships between plasma concentration and clinical response showed "no consensus," were "questionable" or "futile," or "correlate poorly" or that the measurements were "naive" or "uninformative." The exception is, of course, lithium. This all might make one long for the simpler days of the sulfonamides and clear correlations between plasma concentrations, therapeutic response, and side effects.

As minor criticisms of the book, this reviewer found Chapter 8 on chlorpromazine to be too exhaustive in its historical treatment and too vituperative in defense of the author's own analytical method. In addition, separate chapters on zimelidine and pharmacokinetics of tricyclic antidepressants and cerebrospinal fluid seem unnecessary.The terminology "plasma levels" also appears, which smacks of jargon, yet attempts to eliminate it will be a losing battle.

The book, in general, will be valuable to pharmacologists, clinicians, drug metabolism scientists, and analytical chemists in this field.

Reviewed by Howard B. Hucker
Merck Institute for Therapeutic Research
West Point, PA 19486

Adrenergic Activators and Inhibitors. Part II. (Handbook of Experimental Pharmacology, Vol. 54/II.) Edited by L. SZEKERES. Springer-Verlag, 44 Hartz Way, Secaucus, NJ 07094. 1981. 936 pp. 17 × 25 cm. Price $224.20.

This book is the second part of the latest volume in the well-known *Handbook* series and contains two sections and 14 chapters. The first section covers the effects of autonomic drugs on organ systems other than the nervous and cardiovascular systems. There are chapters on the respiratory system, skeletal muscles, digestive system, endocrine glands, genitals, kidneys, urinary tract, eyes, and sweat glands. The second section covers kinetics, toxic effects, biotransformation, and clinical implications. All types of adrenergic drugs are covered in great detail, including receptor agonists and blocking agents, indirect-acting agonists, false transmitters, and neuron-blocking agents.

As expected, this handbook is well-referenced. The material presented is fairly up to date, with the latest references dating from 1978. There are more than 10,000 items in the author index and about 13,500 separate entries in the subject index.

Each chapter includes some discussion of functional anatomy, location and classification of receptors, and general effects of the drug types of interest. Species variation in drug response are fully covered. In fact, some unusual and exotic species are included. For example, the apocrine sweat glands of the camel, the black rhinoceros, and the slow loris are described.

It may be unfair to criticize the second part of a two-set volume without seeing the first part. However, there are some obvious deficiencies. For example, in the chapter on the respiratory system, there is an obvious error of calculation in a table showing the selectivity index for metaproterenol. There is no mention of the effects of beta blockers on childbirth. In the chapter on the kidney, only receptor agonists and blocking agents are covered; the other types of adrenergic drugs are not considered. However, these minor deficiencies do not detract from the quality of this book.

This volume is an invaluable resource for all researchers in pharmacology and, together with Volume I, should be available to every serious student of pharmacology.

Reviewed by Raymond P. Ahlquist
Department of Pharmacology
Medical College of Georgia
Augusta, GA 30902