

linearity (the correlation coefficient being 0.994 as shown in Table I). The least-squares fit is:

$$\ln(DT) = -1.32 \ln k_d + 1.114 \quad (\text{Eq. 6})$$

Although the slope is (significantly) different from -1 , it is of the same order of magnitude so that this fact in no way disproves the utility of the previous method¹. From the intercept it can be concluded that $\ln(0.693n) = 1.114$, *i.e.*, $n = 3.0/0.693 = 4.4$ half lives.

It is seen that further analysis of the data (1) do not disprove the hypothesis put forth. Whether the model of El-Yazigi is more applicable than previously proposed models (3, 4) is a point for future experimentors to verify.

- (1) Adnan El-Yazigi, *J. Pharm. Sci.*, **70**, 535 (1981).
- (2) T. Y-F. Lai and J. T. Carstensen, *Int. J. Pharm.*, **1**, 33 (1978).

¹ Equation 6 is approximate in the sense that different formulations are being compared.

- (3) J. T. Carstensen, J. L. Wright, K. W. Blessel, and J. Sheridan, *J. Pharm. Sci.*, **67**, 48 (1978).
- (4) *Idem.*, **67**, 982 (1978).
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- (7) J. T. Carstensen, R. Kothari, and Z. T. Chowhan, *Drug. Dev. Ind. Pharm.*, **6**, 569 (1980).
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J. T. Carstensen^x
School of Pharmacy
University of Wisconsin,
Madison, WI 53706

Ashok Mehta
Formby's Inc.
Olive Branch,
Miss. 38654

M. A. Zoglio
Merrell-Dow Laboratories
Cincinnati, OH 45215

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BOOKS

Annual Review of Pharmacology and Toxicology, Vol. 22. Edited by ROBERT GEORGE, RONALD OKUN, and ARTHUR K. CHO. Annual Reviews Inc., 4139 El Camino Way, Palo Alto, CA 94306. 1982. 739 pp. 16 × 23 cm. Price \$22.00 (\$25.00 outside USA).

Traditionally, the first chapter of each volume of this annual review has been devoted to a historical/philosophical/autobiographical topic. This year it is an autobiographical statement by Thomas H. Maren. Traditionally also, the last chapter has been reserved for Chauncey Leake's "Review of Reviews." Since Leake's death, that feature has been continued in a very creditable fashion by E. Leong Way, although with a somewhat narrower perspective. The remainder of the book consists of 23 reviews of the literature, which have been sorted into 13 sections with 1-4 chapters each.

The sections of this year's review are titled: Mechanisms of Action of Drugs and Chemicals; Perinatal Pharmacology; Antimicrobial, Antiviral, and Antiparasite Chemotherapy; Cardiovascular Pharmacology; Renal Pharmacology; Neuropharmacology and Neurochemistry; Behavioral and Psychopharmacology; Anesthetics, Analgesics, and Anti-Inflammatory Agents; Endocrine Pharmacology; Comparative Pharmacology; Environmental and Industrial Pharmacology and Toxicology; Clinical Pharmacology and Drug Interaction; and Techniques.

One would presume that the chapters within each section would be clumped together but, in actuality, they are randomly distributed among the chapters of other sections. Therefore, the practice of dividing the table of contents into sections seems to be an unnecessary gesture since the readers of this volume will be quite capable of grasping the general content of each chapter from the titles themselves.

Individuals in the pharmaceutical sciences will find the review by H. Szeto on "Pharmacokinetics in the Ovine Maternal-Fetal Unit" to be of interest and the review on "Food and Drug Interactions" by C. Jelleff Carr to be useful but rudimental. Especially effective literature reviews are M. J. Antonaccio's "Angiotensin Converting Enzyme (ACE) Inhibitors," J. Torretti's "Sympathetic Control of Renin Release," and H. E. Brezenoff and R. Giuliano's "Cardiovascular Control by Cholinergic Mechanisms in the Central Nervous System." Perhaps the most provocative review is "Neurochemical Basis of Acupuncture Analgesia" by J. S. Han and L. Terenius, while the most debatable offering is "Sociopharmacology" by M. T. McGuire, M. J. Raleigh, and G. L. Brammer.

This reviewer has a standing order for this series and considers it essential as a continuing education tool and as a quick reference source. The number of primary references per review ranges from 67 to 318 for this

volume. Considering the current prices for technical books, this series is a bargain by any standard that might be applied.

Reviewed by Marvin H. Malone
Physiology and Pharmacology Unit
School of Pharmacy
University of the Pacific
Stockton, CA 95207

Topics in Pharmaceutical Sciences Edited by D. D. BREIMER and P. SPEISER. Elsevier/North Holland Biomedical Press, Amsterdam, The Netherlands 1981. 535 pp. 16 × 24 cm. Price \$69.74 U.S., 150 Dfl.

The book, which contains over thirty chapters, is the proceedings of the 41st International Congress of FIP, held in Vienna, Austria, Sept. 1981. There chapters are divided into seven symposia which cover some of the major areas of thrust in the pharmaceutical sciences. The symposium titles are:

Advances in Pharmacokinetics;
Pharmaceutical Aspects of Anti-Cancer Drug Treatment;
Biopharmaceutics: Advances in Drug Delivery
Drug Stability *in vitro* and *in vivo*;
Analysis and Drug Metabolites in the 80s;
Pharmaceutical Technology;
Gene Manipulation, Cell Cultures, and Pharmaceutical Sciences.

An author index is provided but, unfortunately, there is no subject index. The price is rather high for a symposium proceeding produced from camera-ready copy.

Since *Topics in Pharmaceutical Sciences* covers a very broad spectrum of subjects, it cannot be recommended for anyone seeking an in-depth discussion on any particular subject. (It averages less than 80 pages per symposium.) It can, however, be recommended for those who want an overview of the current thinking in the subjects covered.

Reviewed by S. H. Yalkowsky
The Upjohn Co.
Kalamazoo, MI 49001