REVIEWS

The Economics of Drug Innovation. Edited by JOSEPH D. COOPER. The American University, Washington, DC 20016, 1970. xiii + 285 pp. 15 × 23 cm. Price $5.25 paper, $7.95 cloth.

This is the proceedings of the first Seminar on Economics of Pharmaceutical Innovation which was held in Washington, D.C., on April 27–29, 1969. The proceedings are presented as 10 brief chapters which include 12 major papers; both panel and audience discussions of papers on: (*a*) the reliability of drug product performance, (*b*) pharmaceutical firms' return on investment, (*c*) patents, and (*d*) constraints on drug innovation; plus postseminar comments by 23 of the participants.

The major thrust of the seminar seemed to be an exploration of ways to maintain or increase the rate of innovation in the pharmaceutical industry while simultaneously reducing the industry's profit performance. While brief reference is made to the total marketing of prescription products, the participants were preoccupied with the concept of a forced reduction in the industry's profits to some historical all-industry average without recognizing the negligible effect such highly questionable action would have on average prescription prices or medication charges to institutionalized patients.

The speakers included a balanced but high proportion of economists, most of whom apparently were invited to participate because of their prior publications and/or testimony about the pharmaceutical industry in Congressional hearings. Their divergent opinions plus economic analyses and conclusions about such items as industry earnings and the role of the patent system in pharmaceutical innovation underscore the lack of scientific objectivity in that academic discipline.

Industry spokesmen, as in the past, questioned why they should be singled out for professed unfair criticism, especially in view of the industry's contributions to society in the past three decades. Government representatives, making veiled references to both the carrot and the stick techniques, decried lack of cooperation from the industry which ostensibly shows inadequate appreciation for the responsibilities of regulatory agencies.

While the usual topics of molecular manipulation, "excess profits," "wasteful" expenditures for R&D, and generic equivalence are rehashed, new insight is provided by thoughtful analogies as, for example, between regulatory strangulation of the railroad industry and proposals for additional "controls" over the pharmaceutical industry as well as between the industry's "invent or die" and academia's "publish or perish" dilemmas.

New material was presented in a number of areas such as a sound rationale for amortizing the cost of R&D as a capital investment rather than treating it as an operating expense, with data showing this approach's effect on net earnings; the increasingly critical problem of conducting clinical investigations which was illustrated by one experiment which attempted to obtain volunteers' signed informed consent, using aspirin tablets as the experimental drug; and a breakdown of a firm's actual development costs for a biological and for a single chemical agent. The presentation of such new material plus the compilation of other useful even if contradictory information into one volume makes these proceedings a valuable addition to the library of anyone connected with the pharmaceutical or other health-related fields.

Reviewed by Robert W. Hammel
University of Wisconsin
Madison, WI 53706 ■

Handbook of Drug Interactions. By EDWARD A. HARTSHORN. Donald E. Francke, Publisher, Cincinnati, OH 45229, 1970. i + 88 pp. 18 × 25.5 cm. Price $3.50.

This book consists of eighteen articles by Edward Hartshorn that were originally published in *Drug Intelligence and Clinical Pharmacy*.

This series of articles covering drug interactions by classes represents one of the most comprehensive treatments of the subject undertaken by an individual. Dr. Hartshorn's expertise in this field well qualifies him for the task.

While not the final word on drug interactions, this compilation will provide the health-care professional with much information about this emerging area of concern and will give an overview of the extent and seriousness of this problem.

Staff Review ■

Official Methods of Analysis of the Association of Official Analytical Chemists. 11th Edition. Edited by WILLIAM HORWITZ. Association of Official Analytical Chemists, P.O. Box 540, Benjamin Franklin Station, Washington, DC 20044, 1970. xxii + 1015 pp. 18 × 26.5 cm. Price $30.00.

This, the eleventh edition, marks the fiftieth anniversary of the *Official Methods of Analysis*. From the first edition through the most recent one, the *AOAC Methods of Analysis* has continued to grow, both in volume and stature. Through a system of referees and collaborative studies, this compilation is recognized to be one of the foremost reference sources for quality control methods and regulatory compliance procedures, covering a broad spectrum of products.

The 1970 revision contains 47 chapters and totals over 1000 pages. The publication of any book of standards is a monumental undertaking and AOAC should be congratulated for the high quality and consistency of their publication.

Staff Review ■

NOTICES

Nucleoside Antibiotics. By ROBERT J. SUHADOLNIK. Wiley, 605 Third Avenue, New York, NY 10016, 1970. x × 442 pp. 16 × 23 cm. Price: $22.50.

Experimental and Clinical Effects of L-*Asparaginase.* Edited by E. GRUNDMANN and H. F. OETTGEN. Springer-Verlag, 175 Fifth Avenue, New York, NY 10010, 1970. xi + 354 pp. 17 × 25.5 cm. Price: $16.00.

Pharmacie. By YVAN TOUITOU. Masson et Cie, Editeurs, 120 Boulevard Saint-Germain, Paris, France, 1970. viii + 241 pp. 13.5 × 21 cm. (*French*)

Problems Actuels de Biochimie Appliquee. By J. CANAL, C. DREUX, J. LABAT, A. LEMONNIER, P. MAURIN, E. NEUZIL, and J. ROUFFY. Masson et Cie, Editeurs, 120 Boulevard Saint-Germain, Paris, France, 1970. i + 242 pp. 16 × 24 cm. (*French*)

Antibiotika-Chemotherapeutika. By HELMUT HELWIG. Georg Thieme Verlag, Postfach 732, Herdweg 63, 7000 Stuttgart 1, Germany, 1970. vii + 219 pp. 12 × 19 cm. (*German*)

Encyclopedia of Industrial Chemical Analysis. Vol. 9. Casein to Chromium. Edited by FOSTER DEE SNELL and LESLIE S. ETTRE. Wiley, 605 Third Avenue, New York, NY 10016, 1970. xii + 709 pp. 18.5 × 26 cm. Price: $45.00, single copy; $35.00, subscription.

Snake Venoms and Envenomation (Clinical Toxicology Vol. 3., No. 3, Sept. 1970). Edited by RICHARD T. RAPPOLT, SR. Marcel Dekker, Inc., 95 Madison Avenue, New York, NY 10016, 1970. pp. 343 to 517. 14.5 × 23 cm. Price: $8.50.