

REVIEWS

British Pharmacopoeia 1963: Addendum 1966.

The General Medical Council. The Pharmaceutical Press, 17 Bloomsbury Square, London W C1, England, 1966. xiii + 112 pp. 15 × 23 cm. Price 45 s.

This is the second addendum to the "British Pharmacopoeia 1963." Seventy-two new monographs are included. Revisions also appear for approximately 65 monographs currently in the B.P. 1963. Most of the new monographs are for synthetic drugs and their dosage forms. Items such as amitriptyline hydrochloride, nortriptyline hydrochloride, beta-methasone sodium phosphate, and sodium iothalamate injection are among the new additions. The Addendum 1966 will be official from September 1, 1966.

A review of the "Addendum 1964" appears in *J. Pharm. Sci.*, **54**, 1079(1965).

Molecular Modification in Drug Design. Advances in Chemistry Series, American Chemical Society, Washington, D. C., 1964. vii + 228 pp. 15.8 × 24 cm. Price \$5.00.

A few years ago the Division of Medicinal Chemistry of the American Chemical Society held a well attended two-day symposium on the subject of Molecular Modification in Drug Design, which also has become the title of a book summarizing the lectures and discussion. The late Professor Fred W. Schueler, chairman of the symposium, succinctly stated in the preface the essence of the subject: "Molecular modification guided by deduction, induction, and serendipity *via* the prepared mind has produced in the last 25 years more potent and more useful drug agents in various areas of therapeutics than have been reported in all previous history."

Despite the idealistic yearning of the medicinal chemist for theories and laws which will assure the introduction of the best possible member of an established class of drugs as well as of entirely novel drugs, such has not yet proved to be the case. Despite worthy efforts which one day may bear fruit, the exact architecture of not a single active site is known. Until the day of full enlightenment has arrived, superior drugs will arise through molecular modification with its components of intuition, industry, theory, technical ability, flash of genius, and fortuitous circumstance.

The introductory chapter by Dr. Max Tishler combines a scholarly with a practical approach in convincing fashion. Particularly impressive is the unpredictable fact of the presence of the sulfonamide group in a variety of structures constituting agents for bacterial infections, inhibition of penicillin excretion, gout, cardiac edema, and diabetes, not to mention the old chloramine antiseptics. Professor John C. Sheehan describes how chemists modified the penicillin molecule so as to render it effective against resistant staphylococcal infections. In

the chapter by Dr. Gerhard Zbinden, one can see evidence of how, despite the deterrent effect of early theories of action which implied that better sulfas would not be found, chemists, pharmacologists, and clinicians have, nevertheless, produced valuable new sulfas.

So the story goes through 18 well-documented chapters by experts in medicinal chemistry and allied fields. Discrete molecular modification; have brought forth exciting and valuable new anti-hypertensives, *e.g.*, methyldopa, and antidepressants, *e.g.*, imipramine. Modifications of the steroid hormones have produced dramatic increases in biological activity beyond that of the parent hormone, and also important uses have emerged, as in the case of the antifertility agents.

Every medicinal chemist should read this book. It will teach him not to adhere rigidly to theories of drug action as we presently know them. It may help him to create valuable new drugs.

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NOTICES

An Introduction to Pharmaceutical Formulation. By A. G. FISHBURN. Pergamon Press Inc., 44-01 21st St., Long Island City, New York, N. Y. 11101, 1965. vii + 192 pp. 13 × 19.5 cm. Price \$4.50.

Diet and Live: A Guide to Corrective Eating. By JOSEPH I. GOODMAN, M.D. The World Publishing Co., 2231 W. 110th St., Cleveland, Ohio, 1966. x + 300 pp. 14 × 21 cm. Price \$4.95.

Current Topics in Thyroid Research. Proceedings of the Fifth International Thyroid Conference, Rome, 1965. Edited by C. CASSANO and M. ANDREOLI. Academic Press Inc., 111 Fifth Ave., New York, N. Y. 10003, 1965. xxvii + 1219 pp. 15.5 × 23 cm.

Manual on Recommended Practices in Spectrophotometry. American Society for Testing and Materials, 1916 Race St., Philadelphia, Pa. 19103, 1966. vii + 120 pp. 15.5 × 23 cm. List price \$3.50, price to members \$2.45.

Diffusional Separation Processes: Theory, Design, and Evaluation. By EARL D. OLIVER. John Wiley & Sons, Inc., 605 Third Ave., New York, N. Y. 10016, 1966. xvi + 444 pp. 15.5 × 23.5 cm. Price \$14.

Boletim de Escola Superior de Farmacia de Lisboa. Vol. VII (1962-1964). By ANTONIO PEDRO DE GOIS LUPI NOGUEIRA. Escola Superior de Farmacia, Quinta da Torrinha, Avenida 28 de Maio, Lisbon, Portugal. 391 pp. Paperbound.