

REVIEW OF REVIEWS¹

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An interesting development is occurring in the reviewing of pharmacological progress: more and more reviews of a particular field of pharmacological concern are appearing as symposia in book form. This has many advantages. It brings together current data and current opinion in that area. Yet, it cannot offer the broad coverage of pharmacological and toxicological advance as is done so well by *Annual Review of Pharmacology and Toxicology*.

It is significant that the former *Annual Review of Pharmacology* now includes *Toxicology*. This aids in keeping the discipline from fragmenting into competitive in-groups. Toxicology differs from pharmacology chiefly in a quantitative manner. Both deal with the interactions of chemical compounds, at a molecular level, with molecules of living material. These interactions proceed through the levels of organization of living material from subcellular units, cells, organ and tissues, individuals, societies to ecologies. Toxic effects can occur anywhere along the way.

Another review periodical in pharmacology, *Clinical Pharmacokinetics*, is appearing under the editorship of G. S. Avery of Auckland, New Zealand. Many significant review articles are already scheduled. The international scope of this bimonthly is indicated by its publication by Adis Press International of Hong Kong.

GENERAL

With 113 references, Hartshorn reviews interactions of psychotherapeutic agents. McMahon edits an important series of monographs on principles and methods of human research and therapeutics. These range from general principles through drug-induced toxicity, pharmacokinetics, and experimental design to special types of drugs such as cardiovascular, endocrine, and psychotherapeutic agents. Rossoff compiles a compendium of 1800 drugs used in veterinary medicine.

Pointing out that there are accessory reproductive organs in mammals, Spaziani reviews the control of cell and tissue transport by sex hormones. The six volumes of *Proceedings of the Sixth International Congress of Pharmacology* held in Helsinki

¹This review was completed July 1, 1976, for material available at that time. References are cited by author, without numbering. Names are arranged alphabetically for convenience.

CARDIOVASCULAR-RENAL

Using 305 references, Dauchot & Gravenstein caution about the use of atropine in treating bradycardia after myocardial ischemia. Davies & Reid edit 26 comprehensive reviews on the central effects of drugs on blood pressure regulation, from adrenergic mechanisms to clonidine, and to the relation of reserpine to breast cancer.

Iseri, Freed & Bures review the relation of magnesium deficiency to cardiac disorders. Kritchevsky edits 10 in-depth reviews on hypolipidemic agents, ranging from cholesterol metabolism through vascular enzymes and specific drugs to the rationale for hypolipidemic therapy.

Francis offers a short review of new cardiovascular agents, while Schultz, Smith & Woltersdorf do likewise for diuretics. Needleman edits nine helpful surveys of organic nitrates, with much on metabolism. Wilson chairs a symposium on the sulphamoyl diuretic, bumetamide, with 21 reports.

TOXICOLOGY

With 79 references, Bender reviews salicylate intoxication, noting that aspirin is the most frequent drug involved in accidental poisoning. Coulston & Korte edit 30 essays on environmental quality and safety from air pollution to pesticides and herbicides. Goodman, Bischel, Wagers & Barbour describe common features of barbiturate intoxication, with pneumonia as the chief factor in morbidity and mortality. A recent report from the International Agency for Research on Cancer evaluates the carcinogenic risk of exposure to various chemicals, dealing mostly with aziridines, mustards, and selenium.

CLINICAL

Aicardi surveys drugs used in the treatment of petit mal. Cluff, Caranasos & Stewart broadly discuss various clinical problems occurring with drugs. Greenblatt edits 11 reviews on drugs used in combination with other therapies. It deals mostly with psychotropic therapy in schizophrenia, depression, and alcoholism. Hirsh, Gent & Genton review platelet suppressive drugs used in the treatment of thrombosis. A short practical review of barbiturate therapy was given by Hoskins for American Hospital Formulary Service.

With 67 references, Lunan reviews topical treatment of burn patients, mostly with silver salts and antibiotics. Simpson edits 13 reviews on drug treatment of mental disorders, from phenothiazines to lithium. Weiss edits 18 reviews on cyclic nucleotides in disease, ranging from cancer and cardiovascular disease, to endocrine and central nervous disorders.

MISCELLANEOUS

Gaetano reviews pharmacology of platelet aggregation. Goldberg & Ramwell well cover the role of prostaglandins in reproduction. With 65 references, Hemminki

reviews factors influencing drug prescription, not surprisingly concluding that advertising and detailing by drug firms are most important. Houck edits 22 reviews and bibliography on chalone and their control of cell growth. Chalones may become major adjuncts to chemotherapy and immunosuppression.

Mead describes free radical mechanisms of lipid damage and resulting consequences for cell membrane injury. Mendlewicz edits selected papers dealing with genetics and psychopharmacology, such as involved in plasma dopamine β -hydroxylase. Parsons edits 21 reviews of peptide hormones from amino acid sequences to regulation of protein synthesis. With 89 references, Yosselson reviews the effects of drugs on nutritional factors from amino acids to vitamins.

IN PROSPECT

As reviews in pharmacology become more technical, and symposia volumes more diverse, an annual survey of them may aid in maintaining perspective and balance for the discipline as a whole.

Literature Cited

- Aicardi, J. 1975. *Therapie* 30:161-74
- Anderson, K. E., Bodansky, O., Kappas, A. 1976. *Adv. Clin. Chem.* 18:248-88
- Assem, E. S. K. 1975. In *Allergy '74*, 93-107. New York: Grune & Stratton
- Bach, J-F. 1975. *Mode of Action of Immunosuppressive Agents*. Amsterdam: Excerpta Med. 398 pp.
- Bender, K. J. 1975. *Drug Intell. Clin. Pharm.* 9:350-60
- Burns, R. S. et al 1975. *West J. Med.* 123:345-49
- Cluff, L. E., Caranasos, G. J., Stewart, R. B. 1975. *Clinical Problems with Drugs*. Philadelphia: Saunders. 308 pp.
- Corcoran, J. W., Hahn, F. E. 1975. *Mechanism of Action of Antimicrobial and Antitumor Agents*. New York: Springer. 750 pp.
- Cotten, M. deV. 1975. *Pharmacol. Rev.* 27: 291-446
- Coulston, F., Korte, F. 1975. *Global Aspects of Chemistry, Toxicology and Technology as Applied to Environment*. Stuttgart: Thieme. 276 pp.
- Counsell, R. E., Ice, R. D. 1975. *Drug Design* 6:172-262
- Csaky, T. Z. 1975. *Intestinal Absorption and Malabsorption*. New York: Raven. 308 pp.
- Dauchot, P., Gravenstein, J. S. 1976. *Anesthesiology* 44:501-18
- Davies, D. S. 1975. *Lung Metabolism*, 201-18. New York: Academic
- Davies, D. S., Reid, J. L. 1976. *Central Effects of Drugs on Blood Pressure Regulation*. Baltimore: Univ. Park Press. 320 pp.
- Dews, P. B. 1975. *Pharmacol. Rev.* 27: 447-98
- Eichler, O. 1975. *Kaffee und Coffein*. Berlin: Springer. 580 pp.
- Fielding, S., Lal, H., eds. 1975. *Antidepressants*. Mt. Kisco, NY: Futura. 370 pp.
- Francis, J. E. 1975. *Ann. Rep. Med. Chem.* 10:61-70
- Gaetano, G. 1975. *Pharmacol. Res. Commun.* 7:301-10
- Goldberg, V. J., Ramwell, P. W. 1975. *Physiol. Rev.* 55:305-51
- Goldstein, A. et al 1975. *The Opiate Narcotics*. 19-31. New York: Pergamon
- Goodman, J. M., Bischel, M. D., Wagers, P. W., Barbour, B. H. 1976. *West. J. Med.* 124:179-86
- Gordon, M. 1975. *Ann. Rep. Med. Chem.* 10:1-50
- Greenblatt, M., ed. 1975. *Drugs in Combination with Other Therapies*. New York: Grune & Stratton. 202 pp.
- Greenspan, E. M., ed. 1975. *Clinical Cancer Chemotherapy*. New York: Raven. 414 pp.
- Grindey, G. B., Moran, R. G., Werkheiser, W. C. 1975. *Drug Design* 5:170-251
- Guldberg, H. C., Marsden, C. A. 1975. *Pharmacol. Rev.* 27:135-206
- Hartshorn, E. A. 1975. *Drug Intell. Clin. Pharm.* 9:536-50
- Hemminki, E. 1976. *Drug Intell. Clin. Pharm.* 10:321-29
- Hermis, H. G., Vitaenzer, V. 1975. *Drug Design* 6:263-97

- Hirsh, J., Gent, M., Genton, E. 1975. *Thrombosis* 33:406-16
- Hoskins, N. M. 1976. *Am. J. Hosp. Pharm.* 33:333-39
- Houck, J. C. 1976. *Chalones*. Amsterdam: North-Holland. 540 pp.
- International Agency for Research on Cancer, Lyons. 1975. *Evaluation of Carcinogenic Risk of Chemicals*. 208 pp.
- Iseri, L. T., Freed, J., Bures, A. R. 1975. *Am. J. Med.* 58:837-46
- Iversen, S. D., Iversen, L. L. 1975. *Behavioral Pharmacology*. New York: Oxford Univ. Press. 320 pp.
- Krasnegor, N. A. 1975. *Pharmacol. Rev.* 27:499-548
- Kritchevsky, D. 1975. *Hypolipidemic Agents*. New York: Springer. 488 pp.
- Lemberger, L., Rubin, A. 1975. *Life Sci.* 17:1637-42
- Lieber, C. S. 1976. *Sci. Am.* 234:25-33
- Lien, E. J. 1975. *Drug Design* 5:81-132
- Lindquist, R. N. 1975. *Drug Design* 5:24-80
- Logan, W. J. 1975. *Adv. Neurol.* 13:47-78
- Lunan, H. N. 1975. *Am. J. Hosp. Pharm.* 32:599-605
- McMahon, F. G., ed. 1974-1975. *Principles and Techniques of Human Research and Therapeutics*. Mt. Kisco, NY: Futura. 9 vols.
- Majchrowicz, E. 1975. *Biochemical Pharmacology of Ethanol*. New York: Plenum. 368 pp.
- Mead, J. F. 1976. *Free Radicals in Biology*, 51-68. New York: Academic
- Mendlewicz, J., ed. 1975. *Genetics and Psychopharmacology*. Basel: Karger. 140 pp.
- Mirkin, B. L., ed. 1976. *Perinatal Pharmacology and Therapeutics*. New York: Academic. 464 pp.
- Morselli, P. L., Garattini, S., Sereni, F., eds. 1975. *Basic and Therapeutic Aspects of Perinatal Pharmacology*. New York: Raven. 440 pp.
- Nachmansohn, D. 1975. *Chemical and Molecular Basis of Nerve Activity*. New York: Academic. 403 pp.
- Needleman, P., ed. 1975. *Organic Nitrates*. New York: Springer. 196 pp.
- Nicholson, P. A., Lader, M. H., eds. 1976. *Br. J. Clin. Pharmacol.* 3:(Suppl. 1) 109 pp.
- Parsons, J. A., ed. 1976. *Peptide Hormones*. Baltimore: Univ. Park Press. 382 pp.
- Paton, D. M., ed. 1975. *The Mechanism of Neuronal and Extraneuronal Transport of Catecholamines*. New York: Raven. 405 pp.
- Rane, A., Wilson, J. T. 1976. *Clin. Pharmacokinetics* 1:2-24
- Rossoff, I. S. 1974. *Handbook of Veterinary Drugs*. New York: Springer. 730 pp.
- Schultz, E. M., Smith, R. I., Woltersdorf, O. W. 1975. *Ann. Rep. Med. Chem.* 10:71-79
- Singha, R. L., Rastogi, R. B., Hrdina, P. D. 1975. *Life Sci.* 17:1617-26
- Simpson, L. L., ed. 1975. *Drug Treatment of Mental Disorders*. New York: Raven. 425 pp.
- Smithies, A. R. 1975. *Int. Rev. Neurobiol.* 17:132-88
- Spaziani, E. 1975. *Pharmacol. Rev.* 27:207-86
- Tuomisto, J., Paasonen, M., eds. 1975. *Proc. 6th Int. Congr. Pharmacol.* 6th. Elmsford, NY: Pergamon. 6 vols. 1547 pp.
- USP Convention. 1975. *USAN and USP Dictionary of Drug Names*. Rockville, Md.: USP Convention. 352 pp.
- Usdin, E., Kvetnansky, R., Kopin, I. J., eds. 1976. *Catecholamines and Stress*. Elmsford, NY: Pergamon. 644 pp.
- Walker, M. D., Weiss, H. D. 1975. *Adv. Neurol.* 13:149-92
- Wallace, J. E., Hamilton, H. E., Schwertner, H. A. 1976. *Tex. J. Sci.* 27:7-25
- Warren, G. H. 1975. *Ann. Rep. Med. Chem.* 10:109-71
- Weiss, B., ed. 1975. *Cyclic Nucleotides in Disease*. Baltimore: Univ. Park Press. 410 pp.
- Wilson, G. M. 1975. *Postgrad. Med. J.* 51:(Suppl. 6) 100 pp.
- Yosselson, S. 1976. *Drug Intell. Clin. Pharm.* 10:8-14