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BOOK REVIEWS

Common Medicines: An Introduction for Consumers. David J. George. W. H. Freeman & Co., San Francisco, 1979. 197 pp., illus., softbound, \$6.00

This book is intended as an introductory text in pharmacology for the lay public. The principles of pharmacology which are presented, such as a trivial explanation of the cholinergic nervous system, require little or no scientific background and yet may aid the consumer in understanding the effects of drugs. On the other hand, understanding some of the mechanisms of action of specific drugs would require background in animal or cell physiology. Most of the major non-prescription medications are discussed, such as histamine/antihistamines, cough remedies, sleep-aids and laxatives. The few citations of drug interactions and precautions would probably be particularly valuable to the home pharmacist. The detailed chapter on antibiotics gives the reader a "feel" for antibiotic therapy, which he may or may not apply appropriately under conditions where a physician's judgment is warranted. A text such as this gives the lay person a little knowledge and awareness of drug use in our society, and hopefully would stimulate a cautious outlook on indiscriminate self-administration of drugs as medication.

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Handbook of Sensory Physiology: Vision in Invertebrates. Vol. VII/6. H. Autrum, Ed. Springer-Verlag, New York, 1979. 679 pp. illus. indices \$176.00

This volume is part of Springer-Verlag's continuing series in sensory physiology; as in their other volumes on the vertebrate visual system this one is directed to areas of interest to researchers on invertebrate vision. The book begins with an introduction by Autrum of photosensory mechanisms from an evolutionary point of view and is followed by a discussion of photoresponses in protozoa as a model system for studying photobehavior. The emphasis in this chapter by D. Diehn is directed to the photoreceptor system for phototaxis of the protozoan algal flagellate *Euglena*. Two well developed chapters are devoted to discussions of extraocular photosensitivity; that is, photosensory processes that are initiated not through the eye. One is by M. Yoshida on dermal, nerve and brain photoreceptors as related to photobehavior. The other is a discussion by M. F. Bennett on extraocular photoreception in relation to circadian and migratory rhythmic photobehavior. These two chapters develop an area of research that is becoming of great interest to photobiologists. The remainder of the book is devoted to the eye. There are four chapters concerning the optics of invertebrate eyes; these are by W. H. Miller on intraocular filters, the physics of optical light gathering systems by A. W. Snyder, pseudo pupils by D. G. Stavenga, and a discussion by P. Kunze of the classical work going back to Exner on the optics of opposition and superposition compound eyes. The invertebrate visual cell electrophysiology is covered in some detail by M. Järvillehto. There are two interesting chapters; one on the spectral sensitivity of the eye and color vision by R. Menzel, and the other on pigments and physiology of invertebrate eyes by K. Hamdorf. The book concludes with how the techniques developed for genetics can be applied to isolate the mechanisms of the visual system of invertebrates which is demonstrated by M. Heisenberg.

In all, the text is well written and profusely illustrated with drawings, and numerous electron micrographs including scanning and transmission micrographs of the various eye structures and photoreceptors. These are very helpful in following the experiments described and the discussions that follow. There is an authors index to publications as well as to species and a subject index.

This volume does not cover all the diverse invertebrate species or their optics and photochemistry of the visual pigments, for much is yet to be discovered. Though the presentations by the various authors are directed to invertebrate visual and photoreceptor systems, comparisons are made to the visual system of vertebrates. On the whole, the book indicates the direction of the research and therefore serves as an invaluable reference source. The price is prohibitive for most students and researchers; nevertheless, it should be in the libraries for students and researchers interested in photobehavior and vision of invertebrates.

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