coronal orbital sections which are now in routine use in many conditions are not illustrated.

The book is well balanced and lucidly written. There is a good index. The most notable feature is the price—at £15.75 it is excellent value for money. It is recommended not only to clinicians but also to radiologists as an introduction to the subject.

B. E. KENDALL

Physiology and Pathobiology of Axons Edited by Stephen G. Waxman. (Pp. 448; illustrated; $42.25.) Raven Press: New York. 1978.

This is a scholarly work in an area where original work is scattered through a wide range of primary journals and it is beautifully produced, the illustrations including 112 excellent ultramicrograph plates. An important theme is the structural and functional heterogeneity of axons, suggesting a more complex role in signal processing than would be supposed from the conventional view of the axon as a conductor. Interesting recent studies show that sodium channels are more concentrated at nodes of Ranvier and become redistributed after demyelination. The controlling role of the glia and Schwann cells adds another facet to the symbiotic relation between them and the axon, so commonly ignored in studies on peripheral neuropathy in recent years. The editor describes a histochemical marker for the electrogenic membrane at the node of Ranvier, which should be a useful new tool. The evidence that internodal conduction time is not constant in normal fibres, but varies with fibre diameter, is also important.

The 34 contributors are well chosen to present all aspects of the axon from ion-conductance mechanisms to morphology of axon and myelin in health and in disease. There are excellent reviews of immunological and biochemical aspects of axonal diseases of the central and peripheral nervous systems. The biochemical understanding of many genetically determined diseases has advanced rapidly but the same can not be said of acquired diseases. The editor has wisely chosen to let his very distinguished panel present their themes in their own ways, so providing readers with an excellent compendium of the active work on a somewhat neglected aspect of neurobiology.

J. A. SIMPSON

Clinical Pharmacology of Psychotherapeutic Drugs By L. E. Hollister. (Pp. 239; illustrated; £11.00.) Churchill Livingstone: Edinburgh. 1978.

The *Clinical Pharmacology of Psychotherapeutic Drugs* is the first volume in the series of monographs in clinical pharmacology. The author, who has had considerable experience in the evaluation of drugs in psychiatry and the application of principles of clinical pharmacology to psychiatry, follows a brief introductory chapter with chapters on antianxiety drugs, hypnotics, antidepressants, antipsychotics, and lithium. Each chapter is a self-contained review of drug use in these different conditions. These chapters accurately reflect current biochemical and pharmacological views on the pathophysiology of mental disease and the mechanism of drug action. This up-to-date presentation would be valuable not only to specialists in neurology and psychiatry but also to those in more general medical practice who use these agents, often on an empirical basis and with little information about the underlying mechanisms of drug action. If I had any criticism it would be that the introduction is rather short and may not prepare the nonclinical pharmacological reader adequately for some aspects of drug disposition and pharmacokinetics which are later discussed.

J. L. REID

Essays in Neurochemistry and Neuropharmacology Edited by M. B. H. Youdim, W. Lovenberg, D. F. Sharman, and J. R. Lagnado. (Pp. 228; illustrated; £10.50.) John Wiley and Sons: Chichester. 1978.

This volume is part of a series of articles which are orientated specifically to postgraduate research students and research workers in neurochemistry and neuropharmacology, rather than to the clinician. As it is a collection of essays, the articles are not intended to be related to each other so there is no overall theme, and some will be of greater use to the clinician than others.

The first essay, on feedback regulation of central monoaminergic neurones, gives a critical assessment of the functional importance of complex interrelated autoregulatory mechanisms, but any discussion on the reasons for their existence is avoided as being beyond the scope of the essay. This seems a pity because the stated objectives of the series include familiarisation of the reader with current specific problems in these neurosciences.

This tends to be one weakness in the articles in this volume—the salient features of the problems are seldom identified and emphasised in a way likely to give the reader a clear perspective. Often there is too little synthesis of concepts, or pointers for future work.

One exception to this is the essay on the importance of the availability of tryptophan to cerebral serotonin. The controversial aspects are critically appraised and a clear personal view is expressed, with reasons, that there is far less real controversy than would appear to be the case from published research papers and reviews. Another is the critical account of the current state of play in the proteins and memory game.

The remaining essays tend in the main to be too detailed and comprehensive at the expense of any clear message or conclusion. It could represent useful background reading for the clinician wishing to keep up with recent developments in certain aspects of neurochemistry and neuropharmacology, were it not for the lack of any index, which is a serious deficiency in any book of this type.

H. S. BACHELARD

Antiepileptic Drugs: Quantitative Analysis and Interpretation Edited by C. E. Pippenger, J. Kiffin Penry, and Henn Kutt. (Pp. 367; illustrated; $38.35.) Raven Press: New York. 1978.

The last few years have seen a flurry of books on epilepsy from Raven Press, many of them hastily compiled from national or international meetings, and therefore with much overlap between them, both of authors and of topics. The present volume was put together from the proceedings of an American national workshop on measurement of antiepileptic drugs held in 1976, and it attempts to cover three areas: analytical methods, quality control of laboratory assays, and clinical applications of drug levels. Its contributors are, without exception, North American, and the information given is in many places not suitable for the European reader—sodium valproate, for instance, ge

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