Book reviews

Recent Advances in Neuropathology 1
 Edited by W. T. Smith and J. B. Cavanagh. (Pp. viii+325; illustrated; £19.00.) Churchill Livingstone: Edinburgh. 1979.

This is a welcome addition to the Recent Advances series and testifies to the impact that experimental neuropathology and neurobiology have had on classical neuropathology in recent years. Not that the latter has been completely forgotten since there are chapters reviewing recent work on such diverse topics as the aging brain, human neuro-oncology, and metallic toxicity and the nervous system. Other topics covered are the use of tracer techniques in neuropathology, cerebral oedema, cell turnover studies, regeneration in the central nervous system, the application of image analysing systems to neuropathology, experimental neuro-oncogenesis, the pathogenesis of spina bifida, multiple sclerosis, and Parkinsonism.

The editors have persuaded a distinguished group of authors to contribute and, since my width of knowledge is such that I cannot comment critically on all of the chapters, it would be invidious to mention individual authors by name. Nevertheless, it would not be out of place to say that I found the chapter on regeneration in the central nervous system both fascinating and provocative; the chapters on image analysing systems and on human neuro-oncology most interesting and instructive, and the chapter on cerebral oedema—a topic much in need of a critical, authoritative, and informative review—disappointing.

As in any multi-author book, there is a great variation in style but every chapter reads well. The illustrations, however, do not achieve the standard one normally expects in books incorporating photomicrographs and electron micrographs.

This is an important book that will, I hope, be the first of a series, and essential reading for neuropathologists, neurobiologists, and clinicians with an interest in fundamental changes in the nervous system.

HUME ADAMS

Central Nervous System Pharmacology: a Self-Instruction Text By Donald E. McMillan. (Pp. 167; illustrated; \$12.50.) Little, Brown and Co: Boston. 1979.

This is the second edition of a self-instruction text in central nervous system pharmacology. Unlike some similar volumes this is written in a standard narrative style which greatly helps to hold the reader's attention. This edition contains new chapters on general principles of pharmacology and synaptic transmission and also a section on CNS toxicology. The book generally achieves its aim of providing a foundation in CNS pharmacology because the text includes not only a sound background but also a balanced account of current views on the mechanism of action of drugs with CNS activity. In particular recent developments are included and unlike many other standard teaching texts, the drugs discussed are actually in current use. The book is clearly aimed at a wide audience and readers with any pharmacological background may wish to take the author's advice and skip some of the early sections. Generally, this book is accurate although some might disagree with the claim that propoxyphene is of low abuse potential. However, as a whole the volume appears to cover CNS pharmacology at least as well, if not better, than some widely available standard texts. It could well become popular with medical and biomedical science students in addition to postgraduates beginning study in the neurosciences, provided they like or can adapt to the general style of a self-instruction text.

JOHN L. REID

CNS Aging and its Neuropharmacology: Experimental and Clinical Aspects Edited by W. Meier-Ruge. (Pp. 218; illustrated; Sw fr 88.00.) S. Karger: Basel. 1979.

This volume, number 15 in the series *Interdisciplinary Topics in Gerontology*, consists of a collection of 13 papers on various aspects of the neurochemistry and pharmacology of aging. These are topics which have become of great interest since our understanding of the role of central neurotransmitters has

increased, and a substantial number of drugs have been developed and marketed which purport to improve cerebral function in old age. The papers range from an excellent account by Davison of neurotransmitter deficiencies in extrapyramidal disorders, Huntington's chorea, and Alzheimer's disease and senile dementia, to accounts of experimental animal studies of the endocrine aspects of aging, whose relevance is best doubtful. The remaining contributions include some evidence by Calne on the relationship of age to the treatment of Parkinsonism, but mostly consist of reviews of the literature and speculations on the possibility of improving intellectual capacity in the elderly. These can be considered current sources in the literature of negative results, though the middle-aged can only encourage further efforts towards the development within the next few years of truly effective measures for preventing or retarding declining cerebral function in old age.

F. I. COTTELL

Practical Enzymology of the Sphingolipidoses Edited by R. H. Glew and S. P. Peters. (Pp. 321; illustrated; \$34.00.) Alan R. Liss: New York. 1979.

The area of neurolipidoses and leucodystrophies has been revolutionised by the study of specific enzymes along the pathways for the synthesis and degradation of the sphingolipids. A number of laboratories throughout the world have specialised in the study of specific enzymes, but this book is quite exceptional in bringing together many of the original experts to give practical tips on how to prepare the substrates with the appropriate radiochemical as well as detergent, and also to detail important questions of final pH and ionic strength. Dr Kolodny has given a masterful overview, not only from a clinical point of view, but also from his practical experience of running an enzyme reference laboratory. The diseases covered include Niemann-Pick's, Gaucher's, Farber's (lipid granulomatosis), Krabbe's, Tay-Sachs (GM₁) and GM₂) including Sandhoff, metachromatic leucodystrophy, Fabry