Book reviews

spill over into clinical practice. Clearly, with an aging population disorders of mental function associated with normal aging, rather than with dementia itself, may lend themselves to the possibility of improvement by drug treatment. Whether this is a happy state of affairs, or something with profound ethical implications for society as a whole is something which has not yet received the attention it deserves. This relatively small book reviews possible approaches to the pharmacology of aging in animals, and in humans. The human work is related mainly to the unwanted effects of drugs in the elderly with particular regard to drug interactions and to unexpectedly powerful effects in aged people. These chapters in the book are particularly useful. The precise value of experiments of maze-learning behaviour in aged rats to abnormalities of human behaviour in the latter decades of life are rather uncertain, but it is refreshing to see work on suitable subjects for scientific investigation. Several chapters are concerned with biochemical concepts of neurotransmitter action, and of changes in the activity of cyclic-AMP-determined enzyme effects in aged animals and these are less satisfactory, representing rather preliminary work with little relation to clinical practice, or indeed, to changes in drug action in aged animals. It is, perhaps, reassuring to read that "a universal decline in transmitter-receptor interactions appears not to occur in the brain during aging." Nonetheless, it must be admitted that there are changes in intellectual function in some aged people, who are in all other respects normal, without signs of dementia. These aspects of brain function in aging individuals merit further study.

M SWASH

Hormones and the Brain Edited by David de Wied and Pieter A van Keep (pp 325; £16.95) Lancaster: MTP Press Ltd, 1980.

The editors of this volume deserve congratulations and thanks. David de Wied is noted for his highly original studies of the behavioural effects of peptide fragments derived from ACTH, MSH, vasopressin and the endorphins. Pieter van Keep is experienced in endo-

crinology and in the field of medical communication. Together they have produced a workshop-derived volume that can be read from cover to cover with enjoyment. The date of the workshop is not stated but most articles cover the literature up to the end of 1979 and several include papers for the first half of 1980. Of the contributors, 23 work in the USA and 31 work in Europe. None is from the UK.

The first section of the book contains eight chapters on brain receptors for steroids and peptides and the anatomy of peptidergic systems. These papers maintain a broad functional outlook and are accessible to any medical reader. Of the nine chapters on the experimental study of behaviour effects of hormones, six concern peptides and three concern sex hormones. There is a skilful blending of experimental and clinical data concerning addiction and schizophrenia. The remaining 10 chapters are on diverse clinical aspects of the interaction between hormones and psychopathology, including three on affective disorder.

Most interest attaches to the behavioural effects of endogenous peptides, or fragments derived from them, in particular their effects on the acquisition and retention of learned behaviours including addiction. The presentation of the animal work is lucid and stimulating. Lapses into pseudo-explanations are rare. However, the statement "neuropeptides may exert their effects on behavioural adaptation by modulation of ongoing activity in the brain and thus function as neuromodulators" (p 170) is not far in spirit from the classical "morphine owes its sleep-inducing effect to its hypnotic properties." There are no occasional inconsistencies or conflicts between chapters. Thus the statement (on p 106) that diabetes insipidus rats have a serious memory deficit is questioned on page 95. This may be interpreted as a sign of commendable editorial restraint. Indeed the most serious criticism I have of this volume is that six of the chapters should have been longer. Neurologists and psychiatrists will find this book an excellent summary of the most exciting recent work on the role of hormones and peptides in normal and pathological behaviour.

BS MELDRUM

Current Status of Modern Therapy Vol 6. The Therapy of Pain Edited by Mark Swerdlow (pp 250; £16.95) Lancaster: MTP Press, 1981.

Edited by a renowned practitioner in the field of pain relief, this book comprises nine chapters, each chapter covering various aspects of the subject in different ways and to differing standards. For this reviewer, three contributions stand out as being particularly valuable. That on nerve blocks (AS Brown) is excellent, and a model of detailed and critical assessment, in particular when dealing with the results and especially the hazards of many neurolytic procedures. All concerned should be familiar with these hazards, which have resulted in a search for alternative and safer procedures. The displacement of chemical neurolysis by thermocoagulation procedures in many centres is well illustrated in the following chapter devoted to the role of neurosurgery for pain relief (E Hitchcock). The profusion of techniques discussed in this interesting and useful contribution indicates the dilemma of exactly what is the best procedure to advise for the patient. The account of management of pain in cancer patients (RD Hunter) has six of its pages devoted to a helpful discussion on diagnostic techniques, which adds to a most worthwhile and realistic consideration of what the radiotherapist and oncologist have to offer. These three chapters are very informative and outweigh the more conventional treatment given, admittedly by distinguished authorities in their fields, to pharmacological management (NE Williams), psychiatric management (I Pilowsky), non-invasive methods (M Mehta) and terminal care (C Saunders). Whether yet another chapter on management of a pain relief centre (S Lipton) is justified must remain a matter of opinion. The least satisfactory chapter is that on the neurological aspects of pain therapy (BD Wyke). Particularly disappointing are that its thirty pages are entirely devoid of detailed references in the text, that in this volume on the therapy of pain there is no reference to the fact that much of the material is based on animal work, and that the endogenous opiate-like substances are barely considered.

In essence, this is a book of patchy

quality and usefulness; the good chapters are very good, the production of the book is excellent, and the price reasonable. Even if only a small number of doctors will want to purchase their own copy, it should be readily available for consultation by those treating patients with pain.

GD SCHOTT

Current Status of Modern Therapy Vol 8. Disorders of Movement Edited by André Barbeau (pp 216; £14.95) Lancaster: MTP Press, 1981.

In the past two decades there have been many intriguing and at times seemingly contradictory contributions to the field of movement disorders—an area of common and compelling interest to both neurologists and psychiatrists—and there has been a pressing clinical need for an authoritative statement. This is the purpose of the present volume. The historical scene is vividly set by André Barbeau whose scholarly survey embraces the fascinating mediaeval epidemics, the evolution of classical terminology and the judicious assessment of controversial, rare clinical entities. Only he who is confident about the diagnostic criteria of Dubini's electric chorea, Jumping Frenchmen of Maine, Latah of Malaysia and Myriachit of Siberia can afford to neglect this chapter.

Throughout the contributions concerning the pathophysiology and treatment of the dyskinesias, where critical reference is made to the salient papers on neurophysiology and experimental neuropharmacology one can detect a refreshing and invigorating editorial breeze of intellectual honesty. Thus in the treatment sections there is a marked absence of the irritating ambiguities of former handbooks such as "worthy of trial" or "may be helpful." It is categorically stated when there is no effective treatment; when side-effects outweigh limited benefit there is a firm directive. The decisive advances in the medical and surgical understanding of myoclonus, chorea, athetosis, torsion dystonia, tardive dyskinesias, essential tremor, Wilson's disease as well as Parkinsonism are succinctly summarised sifting reliable facts from doubt, speculation and groundless enthusiasm. This is a most welcome and successful book. It con-

cisely achieves its purpose of presenting the state of the art and it is warmly recommended to all clinicians.

GERALD STERN

The Physiology of Peripheral Nerve Disease Edited by Austin J Sumner (pp 504; £20.00) London: WB Saunders, 1980.

Clinical neurophysiologists will welcome this excellent account of the normal and abnormal physiology of peripheral nerves from 14 experts on different aspects. The introductory chapter on excitation and conduction in nerve is excellent though, surprisingly, the insight into membranes and their electrical properties has had surprisingly little practical application in electrodiagnosis (accommodation is only mentioned with respect to motoneurons). The book is not a primer of peripheral neurophysiology—the regulation of recruitment and firing frequency are not discussed—but in the restricted field of peripheral nerve disease it is comprehensive and accurate. The recent spate of information about demyelination is slowing down and this is an appropriate time for reviewing the position. A future edition might give more consideration to the other sheaths protecting the microenvironment of nerve. The toxicological evidence that peripheral nerves may be damaged at different points is noted. Certainly the grouping of neuropathies into segmental demyelination, "dying back," and Wallerian degeneration types is too simple and it is clear that the axonal neuropathies will figure more prominently in a later edition. The editor provides a succinct account of his fine work on experimental axonal neuropathies but does not discuss the less direct methods available for human studies. Motor unit counting, despite its limitations, is surely worth mentioning. Despite its orientation to the experimental preparation, the book will be referred to constantly by the clinical neurophysiologists as the chapters range widely over the relevant area. They include: excitation and conduction in nerve (Barchi), cutaneous receptors (McIntyre), mammalian muscle spindles (Kennedy and colleagues), motor units in mammalian muscle (Burke), trophic effects of nerve on muscle (Harris), axoplasmic transport (Plesure), neuro-

muscular transmission (Pickett), demyelination (McDonald), acute compression block and entrapment neuropathy (Gilliat), axonal polyneuropathies (Sumner), autonomic nervous system (McLeod), and a clinical view of neuromuscular electrophysiology (Asbury).

The allocation of space is good and the authors have written clearly and concisely in this well conceived, produced and edited book.

JA SIMPSON

Molecular Neurobiology By Gordon G Guroff (pp 571; SFr 106.00) New York: Marcel Dekker Inc, 1980.

The title of this book recognises the need neuroscientists have to communicate beyond their immediate speciality, but the text hardly does justice to the broad concept of molecular neurobiology. Dr Guroff is a biochemist and, except for a short introductory chapter on neurocytology, he rarely ventures from the biochemist's brief. The book consists of 26 chapters divided unequally into three sections entitled "Biochemical Cytology of Nerve and Brain," "Metabolism and Function" and "Chemical Physiology of Nerve and Brain." The major section on metabolism consists largely of a description of general brain biochemistry—carbohydrates, amino acids, proteins, lipids, nucleic acids etc. In other sections there are useful chapters on the myelin sheath, tissue culture, nerve growth factor, neuropharmacology and memory and learning. As a background text for students and clinicians, therefore, the book has considerable value. An attractive feature is the clinical slant given to certain chapters, particularly those concerned with amino acids and lipids. As well as useful tables summarising the major abnormalities in amino acid and lipid metabolism associated with neurological or psychiatric symptoms, there are short case histories illustrating the relevance of neurochemistry to clinical problems.

In other respects the book is disappointing. There are few references to work published after 1975. While ample descriptions are given of the synthesis and degradation of the well known neurotransmitters, modern knowledge of the basic molecular mechanisms of synaptic transmission only receives curs-