Book reviews

Neurotransmitter Receptor Binding. 2nd Ed. Editors: Henry I Yamamura, SJ Enna and Michael J Kuhar. (Pp 256; \$58.00.) New York: Raven Press, 1984.

Neurotransmitter receptor binding has become an integral part of the modern neurosciences. As more and more neuroactive substances are discovered in brain so the number of receptor binding techniques proliferate. The ability to take a radioactive ligand and to show an interaction with a specific binding site in nervous tissue has revolutionised some aspects of neuropharmacology. However, the use of ligand binding has widened so as to make use of them for drug screening and for the measurement of drug concentrations in biological fluids. However, as with many relatively simple techniques, there are many hidden pitfalls not only in methodology but particularly in data interpretation.

The second edition of this volume is very welcome since the first saw many of us through the difficult problems of establishing ligand binding assays in our own laboratories. It is designed as a laboratory guide to the topic but fluctuates between purely theoretical aspects to very practical considerations. The second edition contains new chapters on peptide receptors and sodium sensitive voltage channels, the importance of which has only become apparent in the past few years. Most aspects of ligand binding techniques are covered from straight-forward *in vitro* binding assay through to auto-radiographic techniques and receptor purification. I was a little surprised that more space was not given to *in vivo* ligand binding particularly with its application to brain scanning. Some chapters are very general while others of necessity centre on those investigations where more detail is known. This is particularly true of the tremendous advances made in the purification and characterisation of cholinergic receptors. As a practical guide the chapter on autoradiography by Michael J Kuhar is outstanding and certainly will aid those attempting to establish such techniques. Overall, a book for the laboratory and one to be recommended as essential reading for research workers contemplating this area. However, the book alone will not solve many of the problems which will be encountered. After all is said and done only practical experience in the laboratory can provide the real answers.

P JENNER

Brain's Clinical Neurology. 6th edition. Revised by Sir Roger Bannister. (Pp 563; £30.00 h/b; £12.50 p/b.) Oxford: Oxford University Press, 1985.

Brain's Clinical Neurology, in its revised form by Sir Roger Bannister, will already be well known to readers of this journal. The sixth edition, published this year, retains the same general outline as its predecessor. It is slightly longer as a result of inclusion of important new material both in the text and illustrations. This modernisation relates to information regarding neuro-transmitter substances, new investigation and imaging techniques, as well as up-to-date revision of many sections describing specific diseases.

The book remains an important resource for students and young doctors acquainting themselves with Neurology.

IMS WILKINSON

Movement Disorders: Tremor. Edited by Leslie J Findley and Rudy Capildeo. (Pp 492; £60.00.) Basingstoke: Macmillan Press, 1984.

Since Denny Brown's *The Cerebral Control of Movement* published in 1966 we have witnessed a number of books on this subject, of increasing complexity and of greater specialisation. A monograph on a single type of involuntary movement illustrates this trend. Such a work must combat the justified criticisms of some publications: excessive zeal and profligacy. Readers of this book will find that Findley and Capildeo and their international team of contributors have succeeded in this task.

In the first section they cover general aspects of definition and classification, physiology, pathology and pharmacology. The second section, in many ways the most interesting, deals in detail with neurophysiology. It taught the reviewer much of the fascination of modern sophisticated techniques. These have made intelligible the complexities of the organisation, patterning and neuronal sets of intrinsic oscillations of neurons, their interplay with peripheral motor and sensory factors and the emergence of the clinical phenomenon—shaking. Tremor appears in response to lesions which release primitive, stereotyped motor mechanisms, probably in response to rebound excitation after hyperpolarisation of the membrane potential. A degree of synchrony must exist between dynamic resonant frequencies in the

limbs and the central neuronal pattern of output. Parkinsonian rest tremor is seen as the product of deafferentation of thalamo-cortical circuits on the effector system, modified by variables in the peripheral input; this makes sense of the results of thalamotomy in the control of tremor. Essential tremor is said to result from rhythmic bursts arising in the thalamus, with lack of entrainment of rhythmic input, plus modification by peripheral factors. It can be abolished by lesions of the thalamus and by hemiplegia. Clinically, the association with rigidity, and the occasional presence of rest tremor are described and explain the difficulty experienced even by experts in distinguishing essential tremor from Parkinsonism. The occurrence of an identical tremor in Charcot-Marie-Tooth disease, Guillain-Barré syndrome and a wide range of other neuropathies probably indicates the subtle effects of motor fatigue and diminished sensory input. It becomes clear that essential tremor is distinct from enhanced physiological tremor (smaller amplitude and greater frequency) and that the latter condition is dependent on enhanced beta-adrenoceptor activity. Cerebellar tremors, kinetic (intention), postural and titubation are clearly separable and their mechanisms are well described. The third and fourth sections comprehensively describe essential tremor and Parkinsonian tremor, leaning heavily on chapters by Findley, whose work has advanced our understanding of assessment techniques and of beta blockade. Stanley Fahn lucidly reviews cerebellar tremor in the fifth section. A miscellany of essays on ocular oscillations, diverse tremulous states and the role of tremor in the organisation of the nervous system complete the text.

I strongly commend this book to those with a special interest in movement disorders. It provides the detail and expertise only attainable in a multi-author work and I found it intelligible and stimulating throughout. It is inordinately expensive, but this I am sure has no relevance to the benign rhetoric and humour of the good Earl of Stockton.

JMS PEARCE

Lecture Notes on Psychiatry 6th Edition. By James Willis. (Pp 250; £5.50.) Oxford: Blackwell Scientific Publications, 1985.

Dr Willis has written a brief introductory textbook for medical students about to commence their psychiatric clerkship. The

book opens with chapters on history taking and the clinical examination. Sections follow on each of the major diagnostic groupings. There are chapters on child and adolescent psychiatry, psychogeriatrics, forensic psychiatry and psychopharmacology.

The style is brisk as befits the size and scope of the book. The approach is traditional mainstream clinical psychiatry with an emphasis on biological forms of treatment. Occasional pronouncements appear idiosyncratic. Few would nowadays advocate the use of projection tests to assess personality; nor the Minnesota Multiple Personality Inventory (MMPI) for that matter. Syphilitic serology is hardly necessary in every patient. Attempts to simplify sometimes mislead; dementia is not necessarily progressive nor is it always irreversible. Also it is a pity, having a mind in particular to the direction in which psychiatry is moving, that the author did not describe the role of psychiatry in the general hospital setting.

These reservations notwithstanding, this is a book that can be confidently recommended to the total novice. The more ambitious student will seek out something more substantial.

BK TOONE

Neurotransmitters, Seizures and Epilepsy II. Editors: Ruggero G Fariello, Paolo L Morselli, Kenneth G Lloyd, L Felipe Quesney and Jerome Engel Jr. (Pp 391; \$68.00.) New York: Raven Press, 1984.

This is a record of the proceedings of the second workshop on neurotransmitters and epilepsy (WONIEP II), which was held in San Antonio, Texas in April 1983. The primary aim of these meetings is to foster interaction between basic scientists and clinicians interested in the role of neurotransmitters in epilepsy. It contains some 30 articles. Some of these represent reviews, others communications of original research. Each contribution is followed by a short discussion. The major part of the book is concerned with the pharmacology of gamma-aminobutyric acid (GABA). Half a dozen papers deal with involvement of cholinergic, neuropeptide, and excitatory amino-acid systems. Only three papers have any direct clinical relevance, two of which deal with gabergic enzymes, recep-

tors and GABA levels in surgical specimens of human brain, and one a short review of clinical trials undertaken with GABA receptor agonists (THIP and Progabide).

The main virtue of the book is in presenting an up to date "state of the art" which is available in a single volume. Clinicians cannot fail to be impressed by the enormous amount of careful animal work being undertaken which is leading to an enormous increase in our understanding of the basic pharmacology of GABA in particular. However, those articles on excitatory amino-acids such as aspartate and glutamate may well be an important pointer to the future. The make-up of the book, however, emphasises the yawning gap that exists between animal experimentation and clinical application of the information gained. In particular, only Dr Schmidt seriously addresses the question of the relevance of animal models of seizures to the enormous range and variability of the human epilepsies. Whilst this problem was the one highlighted by the first workshop in this series, the second workshop seems to have ignored it.

Some criticisms have to be made of the quality of production of what is quite an expensive book. The technique used has obviously been a photographic one. This results in varying typefaces which reproduce with variable quality. Some of the illustrations, particularly of autoradiographs, are so poor as to be totally meaningless. The transcript of the final discussion is nothing short of appalling, and it seems that on one page different typefaces have been used! In general, whilst some of the comments made during discussion are helpful a much tighter editing of the discussions would have been helpful in the production of the book.

The book will largely be of value to those neurologists with some interest in epilepsy who wish to keep up to date with developments in basic sciences. They will find the review articles in this book particularly helpful and one or two of the more original articles very illuminating (for example that of Gale emphasising the importance of regional and compartmental changes in gabergic function). They will, however, find some of the reports of original research at times repetitive, and variably presented. Undoubtedly, some of these manuscripts, produced in time for the deadline of the meeting, will appear in refereed journals in due course, and be presented in a more satisfactory manner.

DW CHADWICK

Depression. (*Patient Handbook 20.*) by D P B Goldberg. (Pp 61; £1.75.) Edinburgh: Churchill Livingstone, 1984.

The Patient Handbook series is written for the general public and aims to give expert advice on those questions most commonly asked about symptoms, treatment, sources of help and other aspects of the conditions covered. A book on depression is very welcome and should strengthen a range of titles short on psychological subjects.

The series is clearly aimed at those who are more intelligent and articulate and the authors, expert in their own fields, sometimes find it hard to give up their particular forms of jargon. In this volume, Professor Goldberg is very careful to explain the meaning of the difficult terms he uses but some of them might have been omitted without any loss of clarity.

The book discusses the nature of depression, its causes, possible treatments and sources of help for the affected person. The nature of depression, is, of course, an area of sustained controversy and the author steers a careful course between the various classifications, with a useful chapter on the transition from unhappiness to depression as an illness. He widely uses the analogy of loss to illustrate his argument and I suspect that this might prove confusing to all but the very experienced. The analysis of suicidal thoughts is useful, dispelling lay myths and emphasising their importance in the management of a depressive illness.

The chapter on the causes of depression is comprehensive and should be of considerable interest, though perhaps a little repetitious. The next, on drug treatment, though difficult, would answer many of the questions asked by patients. The chapters on sources of help, include helping oneself, help from the family and professional help. They are clear, firm and reassuring, giving practical advice about each aspect. Surprisingly, though, there is no mention of the Samaritans as a source of help to sufferers whose family and GP seem unhelpful or whose distress is particularly bad at times when normal sources of support are unavailable. The discussion of the psychiatrist's role includes a section on ECT with a curious description of the electric current being passed through the scalp with the effect on the brain as an after thought. Whilst the main bulk of the book would be acceptable to most eclectic psychiatrists, the sections on psychotherapy is perhaps more controversial and lead the patient to expect approaches that particular therapists might not follow.