Book reviews

Peptides and Neurological Disease. Edited by PC Emson, M Rossor and M Tohyama. (Pp 380; \$118.00.) Amsterdam: Elsevier Science Publishers, 1986.

The elegant pathology carried out in many neurological diseases has often provided a clear indication of those parts of the nervous system on which further investigation should centre. Subsequent biochemical investigation in these areas has identified changes in neurotransmitter systems which have greatly assisted in understanding disorders such as Parkinson's disease and Huntington's chorea. But recent advances have identified a vast array of further potential neurotransmitter substances, namely the neuropeptides, and the time has come to assess their role in the aetiology, progression and drug treatment of neurological disease.

Peptides and Neurological Disease represents a brave attempt to answer these problems. Although resulting from a symposium held in 1983 the editors have thoughtfully added other contributions to produce a balanced approach to the state of the art. The major difficulty is that at this stage the role of neuropeptides in neurological disease is far from clear. For this reason, the book considers the techniques for assessing peptide systems and the distribution of peptide substances in basal ganglia, cerebral cortex and spinal cord. These chapters in turn are the prelude to excellent descriptions of the alterations in peptide substances which occur in Parkinson's disease, Huntington's chorea, Alzheimer's type dementia and schizophrenia. The section on spinal cord sensibly leads to a consideration of the role of neuropeptides in pain. In a manner typical of the logical way in which this book has been put together the final sections consider how peptide substances may provide drugs of the future and their clinical relevance to neurological disease. Clearly, it is still early days in peptide research and at present there is no effective treatment of neurological or psychiatric disease based on peptide derivatives. However, if the enthusiasm for investigations in this area, which has brought together the contributors to this volume, continues unabated, then it must only be a question of time before the peptides make a significant contribution to this field.

A volume to be recommended to the basic scientist and interested clinicians. Also, a must for library collections. The only drawback will be the high cost of the book which

will deter many from obtaining this valuable work.

P JENNER

Can Schizophrenia be Localized in the Brain (*Progress in Psychiatry Series.*) Edited by Nancy C Andreasen. (Pp 87; £15.00.) Washington: American Psychiatric Press Inc. UK Distrib: Cambridge University Press, 1986.

This is a nicely produced little monograph derived from a symposium held at one of the American Psychiatric Association's meetings. It is one of a series entitled "Progress in Psychiatry" and was clearly intended to capture the essence of some important symposias, so that people who could not attend the meeting would nevertheless have the thoughts and writings of the presenters.

The central theme of this one is very topical, and we are presented with five brief reviews of the relationship of schizophrenia to cerebral localisation. As may be expected, the central themes revolve around frontal and temporo-limbic disease, and in the brief space allotted to the authors, the reviews can hardly be called comprehensive. It is pleasing to see a contribution from this side of the Atlantic, with the Reveleys providing a chapter on genetics, and it is a little disappointing not to have some final chapter, preferably from the symposium organisers, summarising what they feel has come from their efforts, and perhaps digesting the important avenues for further research.

The issue of cerebral localisation in schizophrenia is one which requires considerable thought. For those interested, this little book will provide an up to date literature review, and can be recommended. Others who will benefit include students who feel that at long last they should try to get to grips with biological psychiatry and its relationship to schizophrenia, and who need an introductory text.

MR TRIMBLE

The Frontal Lobes. By Donald T Stuss, D Frank Benson. (Pp 370; \$60.50.) New York: Raven Press, 1985.

The frontal lobes present behavioural neuroscientists with a mystery. In phylogenetic terms, the development of prefrontal cortex is the most obvious anatomical difference between man and other species. In man the frontal lobes account for 24-33% of the total cortical surface area, yet even extensive damage may produce relatively lit-

tle in the way of obvious behavioural change when compared with lesions in the posterior cortex. A great deal of attention has focused on attempting to delineate the role(s) of this region through studying the effects of lesions on the performance of neuropsychological tests. Stuss and Benson's book presents a comprehensive review of this literature together with considerations of methodology and theory.

The book contains 17 chapters, informally organised in three areas. The first four chapters serve as an introduction. While much of the treatment is brief, they provide the non-specialist reader with much of the information necessary to appreciate the rest of the book, and give the more specialist reader an up to date (to time of publication) summary of important information.

Chapter 1 describes briefly the various approaches which have guided research on the frontal lobes (physiological, anatomical, clinical, observational and neurophysiological). In addition, it introduces the series of studies conducted by the authors themselves, which represent one of the major integrated bodies of evidence on frontal lobe function. Chapter 2 provides an extremely useful summary of the neuroanatomical evidence. The authors correctly note that our knowledge of the functions of the frontal lobes depends, to a large extent, on knowledge of the neuroanatomy. This is particularly true of the connections between frontal cortex and other brain regions. Much of this evidence has been obtained from animal research, therein presenting a dilemma. The authors in their opening sentence to the book state that "... the study of the frontal lobes might be described as the study of the qualities that differentiate human being from other animals." Despite this, the authors are forced by necessity to accept the anatomical evidence from animal studies, but choose not to consider in detail the wealth of behavioural evidence. As the state, this is partly for reasons of economy but it also has basis in the belief that human frontal lobes are in some ways different. On the whole, even at the expense of brevity, a separate chapter on the animal evidence would have produced a more balanced text. Continuing the introductory chapters is a discussion of the major causes of frontal lobe pathology, plus the main clinical pathological correlations which may be observed. The introduction ends with a brief overview of each of the main methods used in the study of the frontal lobes: neurological, psychiatric, neuropsychological, histological, radiological and electrophysiological.