references to current work and also contains pointers to past milestones in the development of ideas on the motor cortex. It would provide a research student with an extensive base for studying the literature and for developing experimental hypotheses.

In his closing remarks the chairman warns of too simplistic assumptions of cortical organisation and function and emphasises the need for further detailed studies using developing new technology. One looks forward to the next motor cortex symposium with interest!

JSG MILLER

Introduction to Clinical Neuroscience 2nd ed. By Sir John Walton. (Pp 282; £12.95.) London: Bailliere Tindall, 1987.

In this second edition Sir John Walton has taken the opportunity to update much of the material which was first published some six years ago. As an introduction to clinical neuroscience it provides a comprehensive survey of the basic concepts and essential facts. There is no presumption of any previous knowledge of neurobiology, and the text moves rapidly to expositions on the pathophysiology of various neurological conditions which serve to illustrate a particular basic concept.

The text is well illustrated, but references to the literature are rather sparse and appear in a somewhat haphazard manner. The book ends with a useful discussion of various investigative techniques, and although it appears strange to read about the indications and precautions for air encephalography, the book is obviously intended for a wider audience than medical students in affluent western countries. For those who do not have ready access to CT and MRI scanners a fine selection of scans is provided.

In these days when the teaching of the basic medical sciences is supposed to be increasingly integrated with clinical medicine, such a book serves as a model exemplar of the genre. However, in schools where this approach has not been introduced, the preclinical teachers and clinicians in neuroscience might consider that the "basic science" and "clinical practice" respectively has not been sufficiently well covered for their liking. They will suggest to medical students more comprehensive texts in their fields, and the role for such an "Introduction" is difficult to envisage with the many competing pressures on students' reading times. All this illustrates the urgent

need for integrated preclinical and clinical teaching, where such a book is ideal.

CHRISTOPHER KENNARD

Magnetic Resonance Imaging: Basic Principles 2nd ed. By Stuart W Young. (Pp 298; \$49.00.) New York: Raven Press, 1987.

The speed with which magnetic resonance imaging is advancing is astonishing even by the standards of modern medicine. It is therefore quite hard enough for those involved with it to keep pace with the technology; it is almost impossible for those with limited exposure to be able to keep abreast. The books covering the basic principles stop at the conventional imaging, making only brief reference to "future" possibilities such as MR angiography, fast sequences and volume imaging etc. That these are rapidly reaching the stage of clinical evaluation must necessitate an understanding of the principles underlying these techniques. A book which covers both the basics as well as explaining the principles of these more advanced imaging techniques is therefore to be welcomed. Dr Young writes in a very readable manner and without going into detailed physics covers the subject very comprehensively.

The first four chapters are concerned with the basic principles and discuss in some detail the main imaging techniques of filtered back projection and two and three dimensional fourier transformation.

Chapter 6, which accounts for over one third of the book, is concerned with non neurological as well as the neurological applications and includes a useful section on some of the commoner artefacts encountered. The relatively short text is extensively illustrated with examples demonstrating less straightforward pathology which is adequately explained in the captions. Interestingly, however, the numbering of some of the captions is missing, presumably an oversight due to the desire to have such an up to date book in print as quickly as possible.

A chapter on the role of imaging and in particular MRI in the changing economic climate follows. This is more applicable to American readers but will also be of interest on this side of the Atlantic. Further chapters deal briefly with the planning of a new scanner and the possible role of spectroscopy and the book concludes with a useful glossary of terminology and a rather limited review of normal anatomy, many of

the scans being rather too small to be useful.

This book, however, has a rather different slant from the usual book on basic principles and so will be a useful addition to the text books currently available. It is highly recommended.

DPE KINGSLEY

Clinical Neuroimmunology. Edited by J Aarli, WMH Behan, PO Behan. (Pp 531; £60.00.) Oxford: Blackwell Scientific, 1987.

Those who use immunological techniques of theory to understand order and disorder in the nervous system may be sceptical about the need for 531 more pages on neuroimmunology. Clinical investigators are now in a position to benefit from the application of increasingly clever and versatile laboratory techniques, to the extent that strictly immunological biochemical or physiological approaches to understanding disease are giving way to multidisciplinary disease oriented research. Several monographs of neuroimmunology already exist covering the familiar topics of animal models, multiple sclerosis, myasthenia gravis, diagnostic tests and treatment; in these previous accounts and the present book, there is plenty of information, no shortage of hypothesis, but rather less established fact. However, in addition to the neuroimmunological canon (containing European, American, Japanese and Australian contributions) is the literature; inevitably, it will be out of date more

before the ink has dried. The tone is set by the imaginative and at times provocative, overview. The remaining four chapters on general neuroimmunology rehearse the now familiar gamma interferon induced class 2 antigen expression theory of autoimmunity, followed by a purely descriptive account of HLA and disease, a catalogue of monoclonal antibodies that can be used to explore structure and function in the nervous system, and finally a comprehensive account of the function and distribution of complement receptors. Subsequent accounts of immune response to infection could usefully have appeared here.

The section on animal models deals in three chapters with autoimmune and viral models of demyelination; in both, clear distinctions are made between events which damage the blood brain barrier, those which cause inflammation and those which underlie mechanisms of myelin injury. The position reached in the study of some immunological disorders of the nervous system is