Book reviews

interferon, their modes of action, immunological roles, pharmacokinetics and interactions with other cytokines especially interleukins. Several contributors highlight the 2', 5' oligoadenylate synthetase and protein kinase systems as intracellular mediators of their effects; perhaps the most important point to emerge from the non-neurological chapters—amounting to nearly half the book—is that alpha and beta differ from gamma interferon in their structure and partially antagonistic actions. In the clinical context, interferons cannot therefore be considered as a functionally homogenous group of substances differing only in their method of production; dose response effects also need to be assessed.

There is a useful chapter on the systemic effects of interferons, important in so far as they account for many of the symptoms associated with viral infection and also complicate effective blinding in placebo controlled clinical trials. This is relevant to the subsequent handling of the neurological trials, some constituting no more than preliminary anecdotal studies involving 2–3 patients treated on an open basis. Experimental studies on rabies now indicate that the antiviral properties of interferon are useless once the virus has started to replicate in the central nervous system and suggest that interferon will at best supplement but not replace conventional vaccines. The evidence that interferon alpha or beta influence the unpredictable course of subacute sclerosing panencephalitis or malignant brain tumours is difficult to assess and it is unimpressive in the case of motor neurone disease. Those familiar with the published studies of interferon beta (good), gamma (bad) and alpha (indifferent) in the treatment of multiple sclerosis will not find new information except recent follow up figures for the study of intrathecal beta interferon, first presented in 1981. It is not yet clear whether the reported reduction in relapse rate means much in terms of the accumulation of disability—recent epidemiological studies suggest that this may be so—or represents more of a decline than is to be expected as part of the natural history. The book is well referenced but not perfectly proof read and there are many repetitions, even some within the same chapter. At \$107.75, I suggest that Interferon Treatment of Neurologic Disorders will depend on libraries for its sales.

DAS COMPSTON

Aids to the Examination of the Peripheral Nervous System. (Pp 61; £3.50.) Baillière Tindall, 1989.

The late Hugh Garland taught that the competent clinical neurologist could manage well with only a superficial knowledge of the anatomy of the brain, but was rendered incompetent if ignorant of the peripheral nervous system and its examination. In the same spirit George Riddoch, Consultant Neurologist to the Army, in conjunction with Professor Learmonth of Edinburgh, set up in 1940 peripheral nerve injury centres at Gogarburn and Killearn. With help from Ritchie Russell and McArdle 20 copies of a loose-leafed guide was circulated. It was later developed, and published by the MRC as *Aids to the Investigation of Peripheral Nerve Injuries* (War memorandum No. 7). Its importance in filling a real clinical niche has been reflected by its recognition as the standard work which has merited numerous reprints and revisions. The editorial Committee for the Guarantors of Brain under the Chairmanship of Sir John now Lord Walton took it over in 1984 and this new edition was published in 1986.

The format is essentially unchanged: a combination of excellent clinical photographs of muscles being tested, simple clear line diagrams of nerves and the muscles they supply, areas of sensory change with lesions of peripheral nerves, and a list of nerves and the main root supply of muscles. Captions are lucid and precise. The role of distinguished neurologists refining and honing this tool to an indispensable aid to every practising clinician is apparent. This reprint of the 1986 edition fulfils the best standards of its predecessors.

JMS PEARCE

Imaging and Labelling Techniques in the Critically Ill (Current Concepts in Critical Care series) Edited by W KOX, J BOULTBEE, R DONALDSON. (Pp 188; £93.00.) London: Springer, 1989.

This book on imaging techniques of the central nervous system, lungs, cardiovascular system and the abdomen includes ultrasound, computerised tomography (CT), magnetic resonance (MRI) and the use of isotopes.

In the section on neuroradiology half the text is devoted to technological aspects and a little over five pages to the radiology of life threatening procedures. It is a pity that the opportunity to indicate the role of imaging in this situation is rather cursorily dealt with.

The section on magnetic resonance of the heart is an extremely good review of the users of MRI but does not particularly pertain to investigation in an intensive care unit. It is unfortunate that contra-indications relating to the use of MRI in patients with pacemakers and the difficulties in scanning patients on ventilators are not mentioned in this chapter, though they are referred to elsewhere in the book.

The chapter on ultrasound is poorly represented, with no headings; the wording is unusual and there are errors in the text. There is no mention of the requirement for a full bladder in pelvic scanning and indeed the examination of the pelvis is limited to four lines. There is also the interesting suggestion that a plain radiograph is necessary prior to ultrasound, a view that is not universal.

The discussion on CT of the chest reads like a paper in a journal rather than a coherent review on the use of CT in ventilatory failure. There is a further chapter on mobile radiography which includes most of the common indications. Unfortunately one of the radiographs is printed upside down.

The techniques of isotope lung scanning are discussed in great detail, but unfortunately some of the images are poorly reproduced, although in reality this is true of many intensive care films. The chapter on positron emission tomography is interesting but irrelevant to most intensive care units in this country as cyclotrons are rarely available.

It is difficult to know at whom this book is directed. The detail is neither sufficient for radiologists nor does it provide adequate guidance for the clinician to indicate which investigation should be performed in a given situation. The book is quite expensive at £93 and we think it would be better if clinicians were to discuss cases with their radiological colleagues, who should guide them to appropriate investigations in critically ill patients. Unfortunately a golden opportunity has been missed.

D P E KINGSLEY
S RANKIN

Blood Flow in the Brain. Edited by W J ANGERSON, C D SHELDON, J C BARBENEL, A C FISHER, J D S GAYLOR. (Pp 138; £25.00.) Oxford: Clarendon Press, 1989.

Presenting conference proceedings in book format is becoming more and more popular. In general this is unfortunate as the opportunities for adequate editing and for including original material are small. In the vast majority of cases they result in books of short

essays, either of well known material or very preliminary observations which are clearly going to constitute a major scientific publication in the future. Rarely are these proceedings very informative. Nevertheless, it is clear that publishing houses are making profits from such enterprises as the proceedings of symposia continue to proliferate. It is clearly "a good thing" to produce a book and conference proceedings are an easy and efficient way of doing this. This preamble is motivated by a general sense of irritation, that the literature is clotted with such volumes which are of limited scientific value. It is perhaps unfair to focus such venom onto a small offering — but it is typical of the genre.

The book has the merit of reporting a conference where physicists, engineers as well as biologists met together to discuss brain blood flow. None of the excitement which might have been generated by such an inter-disciplinary meeting is conveyed. It is not clear from the book when this conference took place. In any event the publication is in 1989 though I suspect the material may well date from 1987 or so.

The book starts off with an excellent précis of the basic physiological principles of regulating blood flow by A M Harper. Dr Harper's pre-eminence in this field is well recognised and this short chapter is eminently readable by anyone and conveys fundamental basic principles coloured by Dr Harper's personal experience. Dr Rowan, also from Glasgow, reviews the use of radio-nuclides in CBF measurement. Again the space allocated to him makes this of necessity a short and superficial chapter. It might serve as an introduction. A considerable proportion of the remainder of the book is devoted to ^{99m}Tc HMPAO. Frequently this is referred to as a new rCBF tracer. Newness is of course relative, but reports of this tracer have appeared in the literature since 1985 at least and a recent supplement of the *Journal of Cerebral Blood Flow and Metabolism* (1988) has provided much more detailed information on this tracer than the present monograph. Some of the chapters are superficial in the extreme, comprising no more than 3 pages.

Each starts off with a statement saying that measurement of cerebral blood flow is of great clinical interest. I suspect that a whole monograph could be written discussing this very point. The evidence presented in the monograph certainly does not convincingly support such a statement. The absence of extensive CBF measuring facilities in routine clinical practice in this country expresses eloquently the point of view of

many practitioners. I am not at all sure that reading this volume would get them to change their minds.

There are other chapters, some of them of interest such as that by Derlon and his colleagues from Caen. Unfortunately this is simply a rehash of work published in the open press. The chapters on doppler imaging and spectrum analysis are of some interest and again a reasonable introduction is provided by Hames and Humphries. The five or six chapters which follow this are all very short but more informative than those describing cerebral perfusion work.

I find little to recommend in this volume. I am not clear what readership has been aimed at, but I could find nothing in it that is not available in greater detail elsewhere in easily accessible literature.

R FRACKOWIAK

Advances in Contemporary Neurology
Second edition. By FRED PLUM. (Pp 211; £29.12.) Beckenham: F A Davis. 1989.

This book is the latest volume in the prestigious American Contemporary Neurology series, published by F A Davis. The series includes many of the classics of modern neurology, including Gillman's *Cerebellum*, Martin and Reichlin's *Neuroendocrinology*, and Plum and Posner's *Stupor and Coma*. Although very different, this present volume fits in well with the series. It contains six authoritative chapters from fifteen American contributors, although perhaps only two of the six merit star rating.

The selection of topics is wide-ranging. AIDS and mitochondrial disorders must be at the top of any editor's list of priorities, but the book also contains a FDA-orientated chapter on anxiolytics, which contains long lists of approved indications for different benzodiazepines in the USA. Perhaps the rationale here is the possible separation of hypnotic from anxiolytic effects of post-barbiturate compounds such as busiprone. The initial 50-page review of the neurologic complications of AIDS is outstanding. Brew and his colleagues give an up-to-date and concise account of fundamental research as well as clinical experience. Mitochondrial disorders are also well reviewed, starting with the concept that all modern humans may have descended from a single ancestral woman who lived 200 thousand years ago in Africa.

The whole book is a valuable reference source, and here they range from the Z Wiss Zool of 1856, to DNA studies published in *Nature* in 1988, right up to date. Other topics include a new perspective on old

poliomyelitis, with the development of polio syndromes, characterised by progressive muscle weakness and new musculoskeletal complaints (Dalakas and Hallett), a helpful review of tuberculosis of the central nervous system by Gandy, and a review of the anatomy and function of the human prefrontal cortex by Collins. The standard of writing of the different chapters is a little uneven, but the presentation is never less than clear, and sometimes outstanding. Tables, figures and index are all good. So altogether a mixed bag, but worth the money for the AIDS review alone.

J D PARKES

Clinical Electroencephalography and Topographic Brain Mapping Technology and Practice. By F H DUFFY, V G IYER AND W SURWILLO (Pp 304; DM180.) Springer-Verlag, Heidelberg. 1989.

This very well illustrated, beautifully printed and reasonably priced volume, is the product of three American authors, Duffy from Harvard Medical School and Iyer and Surwillo from the University of Louisville School of Medicine. Given the first author's interest in topographic brain mapping, looking at the title of the volume one might be forgiven for assuming that this subject would form the body of the text. In fact, not more than twenty pages are devoted to brain mapping, including six pages of well annotated coloured illustrations.

The setting out of the text is often interestingly idiosyncratic. Thus on page 3 the reader is confronted with a section on Fourier series and power spectral analysis, while on page nine appears such elementary information that "Chart paper comes in folded or 'accordion-folded' packs. Note that the chart paper is perforated at the fold; this is so that packs fold easily and can be separated readily". The style is unashamedly transatlantic and at times disconcertingly colloquial but the basic principles of EEG technology are usually lucidly explained. The first nine chapters concern technology. Chapter ten deals with simple neurophysiology, but neuroanatomy for EEG technologists is consigned to one of no less than seven appendices. All of these, with the exception of the glossary of major terms used in the text, could have been absorbed into existing chapters and the appendix on EEG recording in patients with infectious disease or presented as a separate chapter.

Following the neurophysiology section are two further technological chapters on the