transcripts from the panel discussions. This then is a collection of papers mostly well written and informative. For the specialist neuro-otological surgeon it has a great deal to offer, but I doubt whether many will consider that the price of nearly \$100 justifies its acquisition for a personal book shelf.

H LUDMAN

Greenfield's Neuropathology 4th ed. Editors: J Hume Adams, JAN Corsellis and LW Duchen. (Pp 1123; £85.00.) London: Edward Arnold Ltd, 1984.

The new, fourth edition of Greenfield's Neuropathology has been published eight years after its predecessor. New editions of authoritative reference books, and Greenfield's Neuropathology is surely such a book, are always awaited by practitioners of the appropriate discipline with great expectations which frequently remain unfulfilled. These books should strike a delicate balance between historical review and recent developments of the subject; they should neither become mere archives of ancient achievements, nor should they be just catalogues of recent advances. The criticism occasionally levelled at the previous edition was that, whilst it contained a comprehensive review of the subject, it did not reflect current trends in neurobiology.

Neuropathology, perhaps more than any other branch of pathology, is closely related to the relevant clinical subjects of neurology, neurosurgery, neuroradiology and psychiatry and is intimately allied to the various disciplines of neurosciences including neurophysiology, neurochemistry and neuroimmunology. Neuropathology thus provides a vital link between clinical medicine and experimental neurobiology and its development is inseparable from progress in neurosciences. The last decade has witnessed an explosion of knowledge in neurobiology and the success of the new edition should be judged by its ability to report these new developments. How does the fourth edition of Greenfield's Neuropathology reflect the progress of the last 10 years?

There are obvious and superficial differences between the third and fourth editions and the emphasis is very much on increase: the number of editors has increased to three, the volume become thicker by 180 pages and the purchase price rocketed from £37.50 to £85.00. There is a striking change of authors: two-thirds of the contributors are new and some of them are

experimental neurobiologists rather than clinical neuropathologists. This is a welcome change and some of the best chapters are the result of collaboration between authors of different backgrounds (chapters 2, 7, 13, 14, 18 and 19). The table of contents shows also considerable changes with an overall good effect upon the book. The new chapter on the pathophysiology of raised intracranial pressure (Miller and Adams) provides an excellent clinico-pathological account of the consequences of space-occupying lesions and thus fills a gap which existed in the previous edition. Hypoxia and vascular disorders (Brierley and Graham) now form a single chapter, whilst spontaneous intracranial haemorrhage, dealing with the complications of hypertensive cerebrovascular disease and of aneurysm, merits an additional chapter (Weller). Malformations and perinatal brain damage have been split into two separate chapters, both have been well-written and beautifully illustrated by the same author (Larroche). The chapter on psychoses of obscure pathology has been omitted from the new edition; this is a pity, since interest has recently focused on this difficult, controversial and previously much neglected field. All the other chapters of the previous edition have been preserved and much expanded. The first chapter on the general pathology of neurons and neuroglia (Duchen) sets, to some extent, the tone of the volume: new insight into cellular and molecular biology of the brain forms the scientific basis of recent developments in neuropathology. On head injuries, the reader can enjoy the expertise of the Glasgow group in this field (Adams). The account of demyelinating diseases (Allen) puts the emphasis on research with human material rather than experimental models but the controversial theories of aetiology and pathogenesis are lucidly reviewed. The chapter on lysosomal enzyme deficiencies (Lake) gives perhaps the best example of how cerebral diseases can and should be investigated: light and electron microscopy coupled with biochemical assays and histochemical techniques will provide the diagnosis and the author proves to be a reliable guide through the treacherous jungle of these complex diseases. The authors of chapters on diseases of the basal ganglia, cerebellum and motor neurons (Oppenheimer), disorders of the spine and spinal cord (Hughes), epilepsy (Meldrum and Corsellis), hypothalamus and pituitary gland (Treip) and muscles (Harriman) are the same as in the previous edition; they have however succeeded in

updating their contributions. The chapter on muscle manages to give as much, if not more, useful information in 70 pages than more voluminous books dealing with the same subject. Two leading experts of the field (Tomlinson and Corsellis) have joined forces to give a comprehensive and illuminating account of ageing and dementias. The importance of dementias—10% of those over 65 will become demented—has now been recognised, and recent research, using quantitative morphometry, biochemistry and immunocytochemistry, has provided new insight into Alzheimer's disease which causes dementia more frequently than any other disorder.

The new edition follows what by now has become a tradition: tumours of the nervous system are not incorporated into Greenfield's, presumably since Russell and Rubinstein's book is a complementary volume. Whilst this latter book on brain tumours is likely to remain the most authoritative reference book in neuro-oncology, a cogent case can quite easily be made for Greenfield's Neuropathology to have a chapter on neoplasms. After all, no one questions why muscles and peripheral nerves are included, despite the large number of books dealing with those subjects. This is a problem to which editors of the next edition should address themselves. Even without an extra chapter on tumours, a two-volume edition now appears inevitable.

The book is adequately illustrated and the overall quality of the illustrations is good. It is however surprising to find only half a dozen pictures of immuno-staining (nearly all in the chapter on viral diseases), for this technique has contributed most to clinical and experimental neuropathology since the introduction of electron microscopy. Scanning electron micrographs illustrate the chapter on spontaneous intracranial haemorrhage, while a few CT scans appear in chapters 2 and 6. The reference lists in most cases are up-to-date and the editors need not apologise for having omitted certain historical aspects of the subject.

Editing this book must have been a herculean task for the three editors, but their job has been well done: they have produced a good book.

PL LANTOS