Microsurgery of the Temporo-Medial Region. By PROFESSOR R R RENELLA. (Pp 203; Price: DM158.00.) Wien: Springer-Verlag. 1989.

Professor Renella's superb monograph is a detailed and comprehensive account of the microsurgery on the medial structures of the temporal lobe. Successive sections cover the morphology of the region, then the clinical effects of lesions in these structures. The neuro-imaging of lesions of this region is described and also the neurophysiological investigations required in these patients and the results of functional imaging.

Various microsurgical approaches to this area are described. The author is unduly dismissive of *en bloc* lobectomy which is still used with good effect by many centres carrying out epilepsy surgery. The description of the various approaches to the medial temporal structures is very detailed and includes very necessary descriptions of the correct positioning of the patient and the reasons for this. However, these microsurgical descriptions assume an understanding of the surgery and anatomy of this region which only the experienced surgeon will have, and lack the kind of overview provided by the earlier publications from Zurich so valuable to the new operator in this region. The illustrations in the section on operative surgery are detailed and excellent.

The last section is a detailed analysis of 62 operations carried out by the author in Hannover with up to two years follow-up in 41 cases. This section is an excellent description of the results of microsurgical intervention in this region. The section on neuropathology is difficult to follow but seems to suggest that sclerosis of the medial temporal structures is related to other pathological processes at that area rather than being a finding in its own right.

Professor Renella has produced a thoughtful and detailed monograph about a modern approach to the surgery of temporal lobe epilepsy which deserves to find a place in every centre involved in its surgical treatment.

C E POLKEY

Advances in Cerebral Spect Imaging: An Atlas and Guideline for Practitioners. Edited by R L VAN HEERTUM AND R S TIKOFKY. (Pp 129; Price: £27.97.) Beckenham, Lea & Febiger (UK) Ltd. 1989.

This pocket sized paperback, 129 pages with more illustrations than text, has 2 Editors, 4 Consulting Editors, 16 Authors, and costs £27.97. The only FDA-approved agent available to the contributing authors at the time of publication was IMP (123 labelled n-isopropyl iodamphetamine).

This is a superficially attractive book; good illustrations—some in colour; designed, the introduction tells us, to "introduce functional brain imaging to imaging clinicians and to non-imaging clinicians". Section I deals with Techniques, Section II with Diseased States, Section III with Quality Control of Manufacturers Protocols. In the space available the information has to be presented in concise form. No assumptions are made; anatomical diagrams, clinical information and technical descriptions are extremely simple and clear,

correlative studies with CT or MR explicit. The text is interspersed with boxed "teaching points" which unfortunately are often unhelpful, e.g. "cerebral SPECT studies may prove to be useful, etc", or, in a 77 year old man "the overall findings on the cerebral SPECT study are consistent with a pattern of severe depression". Such statements may provide useful discussion points but, in a non-specialist introductory paperback where the bibliography is an Appendix and unreferenced in the text, are inappropriate as teaching statements.

In summary, an easy read for those new to the subject; illustrations attractive; teaching points could be more constructive.

I ISHERWOOD

Function and Dysfunction in the Basal Ganglia Studies in Neuroscience Series Edited by: A J FRANKS, J W IRONSIDE, R H S MINDHAM, R J SMITH, E G S SPOKES, W WINLOW. (Pp 277; Price: £49.55). Manchester: Manchester University Press, 1990. ISBN 0-7190-2620-2.

This publication presents the main papers given at an international multidisciplinary conference held in July of 1987 at the University of Leeds. Its intent is to integrate and facilitate communications between the relevant neurosciences and clinical neurology concerning the basal ganglia in health and disease—a formidable challenge. Exacting editorial discipline has ensured that each contribution is comprehensible to the non-specialist and that the main topics—neurotransmitter systems, movement disorders, model systems, cognitive functions and psychiatric aspects—are covered in a balanced manner. Unfortunately, presumably because of pressure of space and economy, there is no reported discussion of the papers and the reader is denied that critical penetrating question, that spontaneous and illuminating reflection or that endearing confession of absolute ignorance from an expert that can make attendance at such meetings a memorable experience.

Noteworthy is P R McHugh's intriguing and provocative epilogue. Prudently deciding not to review in detail the contents of all the papers presented, for his text he examines the notion that the basal ganglia are the crossroads of neurology and psychiatry and the implications for contemporary and future research. He diplomatically points out that every research technique carries its own blind spots and mirages, often not comprehended except by the expert in the method, and the reviewer feels obliged to point out that even the expert may be thus afflicted, and that methodological problems probably account for "disagreements, failure to replicate and perhaps even some restriction of views". It certainly sounds as if the discussion of papers was refreshing and lively or, continuing in the diplomatic vein: a full and frank exchange of views took place. McHugh's main theme consists of a syndromic analysis of the triad of the three D's, Dyskinesia, Dementia and Depression, and the respective domains, motor sensory, cognitive and affective. He argues for the need to comprehend integrated mechanisms not only for each symptom complex but also for their tendency to appear together. To what extent current knowledge supports such functional compartmental

interactions, the concerned reader will have to adjudicate, but he must first purchase this book.

GERALD STERN

Familial Alzheimer's Disease. Molecular Genetics and Clinical Perspectives. (Neurological Disease and Therapy Series/2). Edited by: G D MINER, R W RICHTER, J P BLASS, J L VALENTINE AND L A WINTERS-MINER. (Pp 420; Illustrated Price: \$125.00 (US and Canada) \$150.00 (All others). New York, Marcel Dekker, Inc. 1989.

Until recently Familial Alzheimer's Disease was considered to be a rarity. However, in the last ten years careful epidemiological studies have suggested that a significant proportion of cases may be familial and the apparent paucity of familial cases relates to the late expression of the disease. This observation together with demonstration that the majority of patients with Down's Syndrome develop Alzheimer's disease in their fourth and fifth decade have provided a major impetus to research in this area.

Linkage studies have been undertaken in families with autosomal dominant inheritance of Alzheimer's disease which suggest that a Familial Alzheimer's disease gene can be located on chromosome 21. In addition the amyloid protein which forms the central core of senile plaques has been isolated and shown to be derived from a much larger precursor molecule which appears to be a membrane protein. This is also encoded on chromosome 21 but appears to be distinct from the Familial Alzheimer's disease gene. The recent surge of excitement has generated a number of meetings and although this book is published as part of a series on Neurological Disease and Therapy it is derived from a conference held in Tulsa in 1987.

This has resulted in both advantages and drawbacks. Since it is more than yet another conference proceedings there has been the opportunity to provide a coherent overview and there are some excellent general chapters. Of particular note are chapters five and six on the general problems of research into Familial Alzheimer's disease. The chapters on epidemiological studies and on legal perspectives are also excellent although the latter is not of course specific to familial dementia and essentially provides a US perspective.

There is also a good bibliography of references updated to January 1989. However, the editors do not appear to have used the opportunity to edit out inconsistencies and inappropriate material. Thus a chapter devoted to met-enkephalin measurements and another to Nitrendipine binding could easily have been dispensed with. Moreover every chapter reintroduces the problems, definitions and clinical description of Alzheimer's disease which could have been covered in a single introductory chapter. The recurring impression however is that this book is only a conference proceedings in disguise, the suspicion being fuelled by the many inconsistencies which have escaped the editors; thus on page 9 hints are given of linkage of Familial Alzheimer's disease to the amyloid gene only for later chapters to contradict this with clear evidence of a cross over. There are in addition a multitude of typographical errors one of which implies that DNA has now developed axons.

It is I believe unfortunate that the book has fallen between being a well edited overview of this very exciting field and merely another conference proceedings. It will prove useful to people working actively in this area but only for the more general chapters cited, as much of the material is already becoming out of date. Unless there is a copy in the library it cannot be recommended to the more general reader and it is difficult to see how a price of \$150 in the UK can possibly be justified.

M ROSSOR

Neurosciences in Israel. By N OREN AND O ABRAMSKY. (Pp 331; Price: not stated.) Jerusalem, Ministry of Science and Technology, 1989.

This is an interesting publication published by the Ministry of Science and Technology, Jerusalem, Israel which gives a wealth of information on the current status of neuroscience research in Israel. The authors, Dr Naomi Oren and Professor Oded Abramsky (the latter is Head of the Department of Neurology at the Hebrew University in Hadassah Medical Centre, Jerusalem and Chief Scientist of the Ministry of Health) have compiled a volume which gives comprehensive information on current research in this field in no less than 334 pages. The format is not one of a textbook or monograph, but is arranged in a series of sections.

The subject of neuroscience is covered in the widest possible context. We are first given a summary of scientists working in the neuroscience fields in the major University and Health Centres. Brief biographies of these various individuals are given together with their main research areas of interest. The subjects span virtually the whole range of neuroscience including electrophysiology, biophysics, neurochemistry, neuropharmacology, neuropsychology, neurobiology, neurogenetics, neuroepidemiology, neuroimmunology, neurovirology, neuropsychiatry, developmental neurobiology, neuroendocrinology, and behavioural neurology. One certainly gets a feel from this book for the breadth of neuroscience interest in the various Israeli Institutes. The specific scientific activities are then summarised succinctly together with the relevant researchers and I found this to be the most interesting part of the publication. I certainly gained a good deal of very useful information from these summaries and one also appreciated the high standard of academic endeavour. Finally, some general conclusions regarding, for example, the percentage of medical researchers in part-time and full-time research as well as suggestions for collaboration are given. The book ends with a long list of selected publications which I also found useful.

Overall this is an intriguing compilation of data and the authors are to be congratulated on amassing such a large amount of data covering so many fields and in presenting their data so succinctly and cogently. *Neurosciences in Israel* is a book which should be read by all those who are interested in neurosciences in general as well as those intending to collaborate with the various excellent groups in Israel. There is a great deal of interesting information in the book quite apart from the specific relevance to Israeli neuroscience research and I was certainly

very pleased to have this volume in my collection. I believe it would be a useful addition to any neurology or neuroscience library.

PETER GE KENNEDY

Neurophysiology. Applications in the Behavioural and Biomedical Sciences. Ellis Horwood Series in Neurosciences. By K A CLARKE. (Pp 150; Price: £29.95.) Chichester: John Wiley & Sons Ltd/Halstead Press, 1990. ISBN 0-470-21554-2.

This book is written for graduate and undergraduate students in psychology, the behavioural and paramedical sciences. It is also intended to be suitable for psychiatric nurses, speech and psychotherapists. It presents a basic integrated appraisal of neurophysiology at an appropriate level. The information contained is presented in a series of short numbered paragraphs interspersed with many schematic diagrams. These are generally clear although some could have been improved in quality. The text is clearly written and easily comprehensible. There are occasional minor factual inaccuracies but nothing that could be seriously criticised.

Overall I thought that this was quite a nice basic text but I was left feeling rather dissatisfied at the end because of the necessarily superficial coverage of the subject. The student with an enquiring mind or with a specific question to answer would probably not find this book adequate for their needs and might prefer to put its rather high price towards a more comprehensive text.

TIMOTHY J WALLS

Advances and Technical Standards in Neurosurgery, Vol. 17. Edited by L SYMON, L CALLIAUW, F COHADON, B GUIDETTI, F LOEW, H NORNES, E PASZTOR, B PERTUISSET, J D PICKARD, M G YASARGIL. (Pp 255; DM 178.) Wien, Springer-Verlag, ISBN 3-211-82117-1, 1990.

Advances and Technical Standards in Neurosurgery is sponsored by the European Association of Neurosurgical Societies. Since the series was started in 1974 a new volume has appeared each year. It is edited by a committee of distinguished neurosurgeons drawn from Europe, and is intended as a contribution to the postgraduate training of younger neurosurgeons. It contains a small number of comprehensive reviews of key aspects of neurosurgery especially those where relatively rapid change is taking place. Each volume is divided into two parts: "Advances" and "Technical Standards". In theory the chapters in the first category are devoted to theoretical and scientific topics, whilst those in the second category involve detailed descriptions of established operative and technical procedures. In practice, this division between the two sections appears somewhat arbitrary and chapters in each section discuss both technical details and advances in the basic sciences.

This volume covers a varied and stimulating range of topics all relevant to the neurosurgeon who wishes to keep abreast of current developments. In the advances section are chapters on the immunobiology of

brain tumours, the transplantation of adrenal medullary tissue into the brain, and the computer assisted resection of cerebral tumours. The technical standards section reviews the different surgical approaches to colloid cysts of the third ventricle, stabilisation of the spine, and the role of surgery in the management of gliomas. With the exception of the chapters on adrenal medullary transplantation and colloid cysts none of these reviews makes especially easy reading but all are comprehensive, well edited and accompanied by extensive lists of references. The editors have largely succeeded in eradicating the problems, previously apparent, caused by bringing out a book written by a range of authors, some of whom have only a limited fluency in writing English prose. Volume 17, of this series, can be recommended with few reservations. As is only to be expected from a German publishing house, this book is beautifully printed, bound and illustrated. Unfortunately, the high price means that few individual neurosurgeons in the United Kingdom are likely to buy it but it should be acquired by both hospital and departmental libraries.

RS MAURICE-WILLIAMS

Great Men with Sick Brains and Other Essays. By B LJUNGGREN. (Pp 130; Price: \$35 prepaid payable to AANS). Order direct from The American Assoc. of Neurological Surgeons, 22 South Washington Street, Suite 100, Park Ridge, Illinois 60068, USA. 1990. ISBN 0-9624246-0-9.

This is a delightful, entertaining and scholarly series of short stories. They are both historical and biographical. Based on a personal and therefore to some extent idiosyncratic selection, Professor Ljunggren has painted the lifetimes and pioneering achievements of some great founders of neurological surgery. Many of these achievements are not well known, and therefore are of additional interest and importance. Of added spice, Ljunggren includes a good deal of the political and historical incidents which were interwoven with the professional lives of these early discoverers.

We learn of Wilhelm Wagner from Königshütte, the inventor of the osteoplastic flap; of Vilhelm Magnus from Oslo whose work paralleled that of Cushing. Long before Macewen and Godlee, Olof Acrel in 1768 removed in part a soldier's brain tumour which grew through the skull vault. Dr Blackall of Oxford described subarachnoid haemorrhage due to rupture of an aneurysm "the size of a horsebean" at the basilar tip in 1813. Edvard Bull described in detail (1870) a "meningeal apoplexy" which quite remarkably he recognised as being caused by a presumed aneurysm of the posterior communicating artery. This was 50 years before Symond's definitive study in 1923. In 1817 Carl Daniel von Haartman of Turku performed a trepanation of the skull for a depressed fracture. Christopher Withusen performed a common carotid ligation and temporarily abolished pulsating exophthalmos in 1831, only to find an encephalocele, 12 years later at autopsy.

Chapter 3 tells the fascinating life of Axel Key, and of his meeting with the inventor of dynamite: Alfred Nobel; and of the latter's