Book reviews

The Mental Status Examination in Neurology By Richard L. Strub and F. William Black. (Pp. 182; illustrated; \$7.95.) F. A. Davis Company: Philadelphia. 1977.

Appropriate examination of mental status is often neglected, even by those who should be most concerned—that is, neurologists and psychiatrists. Such neglect must stem in part from a lack of experience and confidence in this field, coupled with inability to relate abnormal findings to disordered anatomy and physiology.

This book has been written by a neurologist working in collaboration with a clinical psychologist. The authors' purpose is to emphasise worthwhile methods of examination and link them to underlying anatomical and physiological mechanisms. The three main objectives are first, to enable the examiner to undertake either a brief or detailed evaluation of mental status, second, to identify patients with organic brain disease and often to make specific diagnosis, and third, to identify residual strengths.

The various components of mental status examination are dealt with in separate chapters under the subheadings of terminology, evaluation, anatomy, and implications. The exposition is lucid and the advice practical. Adequate references to guide further reading are given at the end of each chapter. Appendix 1 lists a number of standard psychological tests with brief notes on the indications for, and interpretation, significance, and reliability of each test. Appendix 2 provides a suggested framework for a composite mental status examination.

This book is highly recommended as an introduction to an important but neglected topic.

W. F. DURWARD

Medical Neurobiology Second edition By William D. Willis and Robert G. Grossman. (Pp. 515; illustrated; £19.95.) C. V. Mosby Company: St. Louis. 1977.

This textbook of function and neuroanatomy is most beautifully presented with photographs and diagrams of the

highest quality. The first 85 pages are devoted to a consideration of functional neuroanatomy of the peripheral nervous system with a detailed consideration of the anatomy and physiology of peripheral receptor and effector mechanisms. The reader is led progressively through spinal cord function into the brain stem and its connections with a consideration of investigative techniques in major neurological centres, then through the hypothalamic structures, and finally to the cortex and a consideration of higher nervous system function. Apart from the copious illustrations there is an extensive bibliography at the end of each chapter. A very worthwhile appendix contains details of techniques used in neuroanatomy and neurophysiology. The final 40 pages comprise a most beautifully presented atlas of the brain and spinal cord.

I have read this book with considerable interest and admiration for its content and method of presentation. I consider this one of the best illustrated books on the subject, and find myself frequently referring to the text and diagrams. It can be thoroughly recommended.

J. P. BALLANTYNE

Motor Innervation of Muscle Edited by S. Thesleff. (Pp. 351; illustrated; £9.80, \$21.50.) Academic Press: London, New York, San Francisco. 1976.

The editor organised this book rather than a conference for economic reasons. The result is of more lasting value as he has brought together major reviews by leading research workers, with adequate space for comment and the informed speculation which is so helpful to others. B. W. Fulpus describes the recent remarkable developments on cholinergic receptors made possible by affinity chromatography. Application of this powerful tool to central receptors awaits recognition of suitable ligands. Possible clues may come from clinical cases of toxic encephalopathy. B. Katz and R. Miledi describe the analysis of endplate noise as a new approach to the study of ACh/receptor interaction. J. Heuser on syn-

aptic vesicle morphology and dynamics, R. Rahaminoff on the role of calcium on transmitter release, and L. G. Magazanik and F. Vyskocil on desensitisation at the neuromuscular junction, write on topics which are well understood but still have tantalising gaps. Edith Heilbron describes the effects of immunisation with nicotinic ACh receptor ("experimental autoimmune myasthenia gravis"). Of less interest to clinicians but of major importance to the experimentalist are studies on the receptor proteins of arthropods (G. G. Lunt), excitatory and inhibitory transmission in crayfish (A. Takeuchi), and L-glutamate receptors in locusts (S. G. Cull-Candy) which are about GABA and glutamate transmitters, but studies on these easily accessible synapses must pave the way for similar work on central synapses believed to be present in higher animals. The controversy about neurotrophic functions as distinct from the role of activity with regard to differentiation of muscle fibres is well discussed in two chapters by T. Lömo and E. Gutmann, marred at the very end by ectopia of the references.

J. A. SIMPSON

Understanding the Stretch Reflex Progress in Brain Research Volume 44 Edited by S. Homma. (Pp. 507; illustrated; Dfl.145.00, \$57.95.) Elsevier Scientific Publishing Company: Amsterdam, Oxford, and New York. 1976.

A collection of lectures and presentations at an international symposium held in Tokyo in 1975 is more than usually rewarding owing to the very high standing of the participants. Almost all of the most active researchers on the muscle spindle and its reflexes were present. An opening address by Evarts and Granit on the relations of reflexes and extended movements emphasising polysynaptic stretch reflexes, and a lecture by the organiser (Professor Homma) on frequency characteristics of the impulse decoding ratio between spinal afferents and efferents in the stretch reflex, are followed by 10 papers on muscle spindle and its fusimotor innervation. The dialogue between Barker and Boyd is not yet

resolved but seems to be getting nearer an agreed interpretation. As well as watching the movement of spindles and measuring their mechanical properties, intracellular recording from intrafusal fibres has now been achieved in intact soleus muscle (cat) by Nakajima from the editor's department. The symposium then moved on to the muscular afferents (sic) and processing of the nerve activity, and then to supraspinal control of the stretch reflex with emphasis on alpha-gamma linkage and adaptive control by the cerebellum. The significance of slow and fast muscles in the stretch reflex and a few "new approach" papers complete a book which is a valuable collection of current ideas on the stretch reflex and its roles in motor control. As a sign of the times, though published jointly from Oxford, no sterling price is quoted.

J. A. SIMPSON

Anatomical Neuroendocrinology Edited by W. E. Stumpf and L. D. Grant. (Pp. 472+VIII; illustrated; \$35.00. Dm 91.) S. Karger: Basel. 1976.

Neuroendocrinology is now an established specialty with its own techniques, language, and literature. From its inception with reports of the phenomenon of neurosecretion by Speidel in 1919 and Scharrer in 1928, it has attracted the attention of several notable biologists. Progress has been rapid as exemplified by a voluminous literature and many conferences. It is a measure of past achievements and the thoroughness of current work that this book is concerned mainly with the detailed anatomical location within the brain of neuroendocrinological mechanisms. The book is based upon the International Conference on Neurobiology of CNS-Hormone Interactions held at Chapel Hill, North Carolina in May 1974. The editors have wisely encouraged expansion of the material for this publication. The result is a valuable handbook of the anatomy of neurosecretion profusely illustrated with anatomical maps and atlases. It will be of great interest to any research workers in the neurosciences and in endocrinology. Workers in neuroendocrinology will find the work essential.

J. TREVOR HUGHES

Clinics in Endocrinology and Metabolism Volume 6, Number 1—The Hypothalamus and Pituitary Edited by G. M. Besser. (Pp. 281; illustrated; £7.50.) W. B. Saunders: London, Philadelphia, Toronto. 1977.

This book is a useful addition to the *Clinics in Endocrinology and Metabolism* series. It provides a current authoritative summary of most of the clinically relevant aspects of hypothalamic and pituitary function. Although written primarily with clinical endocrinologists in mind, it will be of considerable value to neurologists, neurosurgeons, and psychiatrists wishing to bring themselves up to date with the many recent advances in the subject. The volume comprises 13 chapters including sections on pathology and radiology of the hypothalamus and pituitary, and on all the characterised hypothalamic releasing hormones, anterior and posterior pituitary hormones including the neurophysins. Although there is a useful chapter on Somatomedin and other growth factors, I think many potential readers would like to have seen a chapter specifically on growth hormone in health and disease. Overall, however, Professor Besser is to be congratulated on maintaining the lustre of this fine series.

J. G. RATCLIFFE

Atlas of Computerized Tomography Scans in Pediatric Neurology By J. T. Jabour, D. Randolph Ramey, and Steve Roach. (Pp. 256; illustrated; £22.50.) Henry Kimpton: London. 1977.

In a paediatric atlas one might expect the subject matter to deal with children but in this book we find that many of the abnormalities and artefacts illustrated also occur in adults. For cases other than hydrocephalus and brain deformities, therefore, one would be better to refer to other publications. The atlas contains some diseases showing normal scans, which seems rather pointless, and in those cases with abnormal scans confirmation is frequently lacking. The introduction contains a description of the principles and technique of computerised tomography which is much too brief to be comprehensible to the paediatric neurologist,

to whom the book is mainly directed. There is no discussion of the principles of contrast enhancement although several enhanced scans are illustrated throughout the book. A list of 100 works is appended but none of these is individually referred to in the text.

If these comments sound harsh they are, in effect, admitted by the authors who, in the preface, apologise for "obvious errors of omission, commission, and distortion" and hope that "in future editions, these errors can be eradicated".

J. L. STEVENSON

Notices

The 2nd World Congress of Biological Psychiatry will be held at the Palace of Congresses, Barcelona, Spain, from 31 August to 6 September 1978. The programme and further information can be obtained by writing to: II World Congress of Biological Psychiatry, Scientific Committee and Secretariat, Casanova 141, Barcelona (11), Spain.

The IVth International Congress on Neuromuscular Diseases will be held in Montreal, Quebec, Canada from 15–21 September 1978. An interesting programme of symposia and free communications (platform and poster sessions) has been planned. Symposia with invited speakers have been organised on the following topics: Cell Membranes and Muscle Disease; Acetylcholine Receptors and Myasthenia Gravis; Nerve Structure and Function; Cell Interactions in the Peripheral Nervous System; Toxic Disorders; Developmental Abnormalities; Metabolic Disorders. The deadline for submission of abstracts for free communications is 1 March 1978. Registration information and abstract forms may be obtained from: The Secretariat, IVth International Congress on Neuromuscular Diseases, 3587 University Street, Montreal, Quebec, Canada H3A 2B6.