

fluos or inadequate. It is of little value as a guide to spelling. Neither of the two most common errors submitted to this Journal—sagittal and interosseous—are listed, and European accented spelling is unreliable (noyau centr  median). Nucleus coeruleus does not appear under any of the current spellings.

J. A. SIMPSON

Cerebral Vascular Smooth Muscle and Its Control Ciba Foundation Symposium 56 (new series). (Pp. 400; illustrated \$35.50, Dfl 81.60.) Elsevier, Excerpta Medica, North-Holland: Amsterdam, Oxford, New York. 1978. The reasons for holding this symposium were several: the technical advances in the measurement of regional and micro-cerebral blood flow and metabolism which have been made in the last decade; increasing evidence of the involvement of ions and other substances in the coupling of blood flow and metabolism; and recognition of neural factors in control of cerebral blood flow but uncertainty as to their exact role. These subjects have been dealt with in numerous symposia. The idea behind this one was to discuss the problems in one forum, not so much in the hope of finding "the answers" but more to ascertain what questions should be asked and what further experiments planned.

The papers covered so wide a range of subjects that it would be impossible to review them adequately. What emerged was the impossibility, on present evidence, of accepting H^+ , K^+ , adenosine or indeed any other substance as the sole link between metabolic needs and blood flow. It is much more likely that the link is multifactorial. There is still the problem as to whether neural control is significantly involved in normal adjustment of blood flow to metabolic needs, or whether its contribution is only significant when the system is under stress. Finally, the hypothesis (for which there is much evidence) that large vessels which are innervated may constrict, leading to dilatation of downstream small vessels of less than $25 \mu m$ which appear not to be innervated needs to be explained. Present techniques which permit both regional and micro-flow to be measured permit this.

Those interested in the cerebral circulation will find this a stimulating book.

JOHN MARSHALL

Neurological Classics in Modern Translation Edited by David A. Rottenberg and Fred H. Hochberg. (Pp. 316; illustrated; £16.95, \$30.95.) Macmillan: London. 1977.

It would be absurd to review the papers reprinted in this book. They are all classics which have stood the test of time. But it is rewarding to find how interesting they are, with fresh insights for the reader who has the labour of translation removed. The editors are to be congratulated on the selection of papers but also on the experts they have recruited to introduce the papers and place them in a modern context. Beginning with Cajal's "New concept of the histology of the central nervous system", there are groups of papers on presenile dementia (Pick, Alzheimer, Bonfiglio), on alcoholic dementia (Wernicke, Morel, Marchiafava and Bignami), myoclonic dementia (Creutzfeldt, Jacob), dysphasia, dyspraxia, and disorders of the body image (Babinski, Broca, Gerstmann, Liepmann), thalamic syndrome (Dejerine and Roussy), spinocerebellar degenerations (Marie, Dejerine and Thomas, Roussy and Levy), narcolepsy (G lineau), and infectious polyneuritis (Landry, Guillain, Barr  and Strohl).

Perhaps the editors would consider a second volume with the best of Hughlings Jackson, Gowers, Erb, Duchenne, Gordon Holmes, and many others. Doubtless the fact that many of these are available in English accounts for their omission from the present useful compilation.

J. A. SIMPSON

A Colour Atlas of Neuropathology By C. S. Treip. (Pp. 208; illustrated; £15.00.) Wolfe Medical Publications: London. 1978.

There has been a growing demand, particularly in laboratory medicine, for atlas presentations, and *A Colour Atlas of Neuropathology* is one of a series dealing with clinical and pathological topics. It is intended as an introduction to the subject for senior medical students, trainee general pathologists, and clinicians in the neurological specialities. Inevitably the presentation of any subject in the form of a colour atlas has limitations. Unless the student uses such a book in conjunction with a more detailed text he will not have sufficient factual background to go through the necessary scientific reasoning which

makes histological abnormality easier to understand. Within these general constraints, this book is useful and fulfils the author's aims.

The introductory chapter deals with normal histology and with the pathological reactions of the cells of the nervous system. The photomicrographs in this chapter are helpful but inevitably the fundamentals of pathological reaction in the nervous system cannot be discussed in detail in the text which, therefore, must be amplified by wide reading. Subsequent chapters deal with the important aspects of the more common diseases of the nervous system. Rarities have rightly been excluded, and although in a short text it is often difficult to emphasise the common and plain, the esoteric, the author has achieved a happy balance. The ultimate value of a pathological atlas depends on the number and quality of the photographs and in this book photographic standards are generally good. Naked eye photographs are mostly in black and white, photomicrographs are colour. As a minor criticism, one might suggest that different magnifications might have been used for some of the photographs. For example, the characteristic inflammatory reaction of tuberculous meningitis is probably seen best at high magnifications. The definition of other photomicrographs for example, those of medulloblastoma, could be improved. In general, however, this is a well-produced book with a clear text from which information can be obtained easily. It is a good introduction to neuropathology.

INGRID V. ALLEN

Human Brainstem Vessels By Henri M. Duvernoy. (Pp. 188; illustrated; DM 290, \$133.40.) Springer-Verlag: Berlin, Heidelberg, New York. 1978.

Professor Duvernoy's work of great scholarship is based on extensive patient researches over many years during which his contributions have included important studies of pituitary circulation and a monograph on *The Superficial Veins of the Human Brain* published by the same house in 1975.

Continuity from his earlier work is clear in the present text and illustrations where the fields of arterial supply and venous drainage are described succinctly. The whole text is economical and clear, decisively

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entering areas of controversy—for example, on arteriovenous anastomoses—while highlighting deficiencies in knowledge.

The text is complementary to the superb photographs and drawings of representative examples which the author has chosen from his examination of 150 human brains obtained within 12 hours of death. The carotid and vertebrae arteries were cannulated and injected with Indian ink and gelatine mixtures. The superficial brainstem vessels were dissected and examined using a stereo dissecting microscope. The courses of the larger internal vessels were followed in 0.5 cm slices after Spalteholz clearing in 10 brainstems with careful examination of the consistency of recorded methods of distinguishing between arteries and veins at this low level of magnification. The first part of the book dealing with the superficial vessels and the courses of the larger internal vessels, clearly shows the arterial and venous relationships of all the notable functional units in the brainstem, and will be of great value to anatomists, physiologists, pathologists, and clinicians.

The second part of the book deals exclusively with the capillary architecture as seen in 300 μm transverse, coronal, and sagittal sections. The injection technique has been sufficiently successful in many of the preparations to allow magnificent photographs to be presented at magnifications between 6 and 36. Although studies on the architecture at this level have been published many years ago for specific structures, there is probably no comparable series of illustrations of the capillary beds of the whole brainstem with clear delineation of the many named nuclear areas and tracts.

This is a very valuable work which anatomy departments will want to have and many will wish to consult. It will probably become a standard work of reference in the new period of interest in functional neuroanatomy.

DAVID DOYLE

The Acute Facial Palsies By Erlo Esslen. (Pp. 163; illustrated; DM 48, \$21.20.) Springer-Verlag: Berlin, Heidelberg, New York. 1977.

This monograph presents the author's cumulative experience of the clinical and electrophysiological aspects of facial

palsy acquired over the past 10 years. He describes his methods for assessing the degree of degeneration of nerve fibres in the facial nerve using an electrophysiological technique, and has established useful electrophysiological indices of both the degree of degeneration and the time at which it is usually complete. An important contribution to the concept of the pathophysiology of the facial palsies has been obtained from the author's co-operation with the otological surgeon by the examination and stimulation of the facial nerve during trans-temporal opening of the internal auditory canal. He has shown that the usual site of compression of the nerve is at the entrance to the Fallopian canal and not more distally as was previously believed. No doubt some of these findings will be regarded as controversial, but the evidence produced by the author seems quite conclusive. This, albeit rather short, book does not make light reading. It is a detailed treatise on facial nerve anatomy and physiology, and covers the subject very comprehensively. There is a useful two page summary of conclusions. This book will appeal particularly to the clinical electrophysiologist who has the problem of assessing and predicting the outcome of idiopathic facial palsies at an early stage. It can also be recommended to the clinical neurophysiologist in particular and the general conclusions should be known to clinical neurologists.

J. P. BALLANTYNE

Neuro-ophthalmology By Joel S. Glaser. (Pp. 364; illustrated; \$35.00, £26.25.) Harper and Row: Hagerstown, Maryland. 1978.

This new textbook from Miami reflects the evolution of neuro-ophthalmology as a diagnostic speciality in North America. It is part of a five volume series on Clinical Ophthalmology edited by Duane.

The first half of the book deals with methods of clinical diagnosis of lesions of the visual pathway and is comprehensive. Several of the tests described, such as the use of photostress to distinguish retinal lesions from optic nerve disease, will be unfamiliar to neurologists. The section on eye movement (Dell'Osso, Daroff, and Todd Troost) begins with an exposition in terms of systems analysis. A glossary is provided

for those who are unversed in the language of "open loop," "integrator leak," "step ramp," and "transfer function." Clinical disorders of eye movement are then described in detail. The last two chapters cover migraine (Todd Troost) and arteriovenous malformations (Todd Troost and Glaser).

The 364 pages are packed with text, illustrations of patients, visual field charts, fundus photographs, anatomical diagrams, radiographs, and copious references including many from the European literature. The production is of high quality and the text both authoritative and readable. Little is said about electrodiagnostic methods; fluorescein angiography is dismissed briefly; and the section on drugs in relation to vision is short. Treatment is not covered and, for example, the reader must look elsewhere for help in the management of ocular myasthenia. It is strange to find homely advice on the relief of ocular discomfort (p. 42).

The book is at its best when discussing the differential diagnosis of such problems as optic atrophy, drusen, and the relationship of pupil responses to visual cortical disorders of vision and the neurological aspect of several conditions. Overall it is a useful volume and is strongly recommended to the expert rather than the beginner.

BRYAN ASHWORTH

Reviews of Neuroscience Volume 3

Edited by Seymour Ehrenpreis and Irwin Kopin. (Pp. 238; illustrated; \$25.35.) Raven Press: New York. 1978. The need for neurobiologists to be kept up to date is currently met by reviews in monthly journals, by the publication of proceedings of conferences, and by collected essays or reviews. From these *Reviews in Neuroscience* stands out as being a well-produced and authoritative series, making a more lasting contribution to the subject than many other topical reviews.

The main theme of volume 3 concerns identification of neurotransmitters in the brain and their localisation within specific neurones. Thus, there is an excellent short review on the distribution of a number of representative neurotransmitters within the mammalian CNS. There are separate diagrams showing the various pathways, with concise discussion of the techniques used in