Book reviews

CURRENT TOPICS IN MICROBIOLOGY AND IMMUNOLOGY Vol. 40. Chronic Infectious Neuropathic Agents (CHINA) and other Slow Virus Infections. Edited by J. A. Brody, W. Henle, and H. Koprowski. (Pp. viii + 74; 22 figures. DM 32.00; U.S.\$8.00). Springer-Verlag: Berlin/Heidelberg/New York. 1967.

Baffling diseases such as disseminated sclerosis and 'degenerative' diseases of the nervous system are fertile fields for propagation of fashionable theories. Lack of substantial evidence for an autoimmune mechanism and increasing recognition of epidemiological features compatible with infection have led to renewed search for infective agents. In the past this has not been a rewarding search, because the natural history and pathology of these diseases were so unlike recognized infections. Now the position is quite different. Two degenerative diseases of the CNS of sheep, visna and scrapie, have been shown to be transmissible. This was missed before because of the remarkably long latent period and the species or strain specificity of the host animal (again resembling disseminated sclerosis). Surprising findings in both of these diseases are that the brain or cord may show no evidence of inflammation and that antibody formation cannot be detected by present methods.

In the human, kuru shows striking resemblances to scrapie. It has been transmitted by serial passage in the chimpanzee by intracerebral inoculation of brain suspension from affected human subjects. Limitation to one tribe may be due to genetic pleomorphism (low ATP-ase) or to hyper-infection by cannibalism at a particular age. Although kuru has not yet been passaged by cell-free filtrates, there is no evidence that the disease is transmitted by an immunological mechanism. Autoimmune phenomena do occur in the related Aleutian disease of mink and may be a factor in the others. Nevertheless, in all of these diseases the evidence for an infective agent is strong. It must have very unusual properties of slow but continuing damage to invaded cells. This has given rise to the name 'slow virus'.

Recognition of these agents opens a wide field for renewed research in 'degenerative diseases'. It is particularly interesting that they tend to be neuropathic, but there is still no evidence that they are related to any human disease other than kuru. Those interested in a brief introduction to this field are recommended to read this short book which contains eight papers presented at a symposium in Los Angeles in 1966. Further advances are sure to follow and many will feel that the cost is excessive for a survey of this nature, though all the papers are well presented.

J. A. SIMPSON

THE MANAGEMENT OF CEREBROVASCULAR DISEASE. 2nd Edition. By John Marshall. (Pp. vii + 215; illustrated. 48s.) J. & A. Churchill: London. 1968. Great advances in understanding of the various factors

involved in cerebrovascular disease have emerged from the development particularly of intracranial angiography, but unfortunately these advances in knowledge have led to relatively little practical improvement in the methods of treatment, and the new tests that are available all carry risks to the patient which are difficult to assess. These cerebral catastrophes are however very common, and this volume gives a clear and practical account of existing knowledge, and describes a sensible approach to therapeutic possibilities.

Dr. Marshall's presentation is particularly helpful in relation to his classification of firstly the various types of 'completed' stroke, and then the stroke-in-evolution, the transient ischaemic attacks, and the part played by carotid artery stenosis.

THE ELECTRICAL ACTIVITY OF THE NERVOUS SYSTEM 3rd Ed. By Mary A. B. Brazier. (Pp. xiv + 317; 151 figures, 1 table, 6 plates. 45s.). Pitman: London. 1968. It is eight years since the previous edition and, at the expense of some forty additional pages, Dr. Brazier has revised this work to cover the considerable knowledge that has accumulated. The value of the book is well described by its sub-title 'A textbook for students'. The text is clear with good illustrations. Each section may be read independently and is provided with a bibliography. For the student entering upon the subject of neurophysiology and for those seeking to revise their knowledge this book is excellent.

A. F. LEWIS

BRAIN, BEHAVIOR AND EVOLUTION Vol. 1, No. 1. (Pp. 90; illustrated. S. Fr. 78.00; \$18.60—for six numbers). Karger: Basel and New York. 1968.

'Brain, Behavior and Evolution' meets the widespread need for an outlet which allows realistic interdisciplinary interaction between those interested in the organization of the nervous system and those interested in the organization of behavior'. So says the introduction to the first volume of this new journal. But if people with these interests wish to interact, they can already do so by reading each other's journals; and it is generally easier to maintain high average quality in a journal that is centred on one established discipline than in one that covers two weakly linked disciplines. An interdisciplinary journal might be useful if its editors made great efforts to attract those rare papers that really unite two subjects; though there is no lack of existing outlets for these exceptional and distinguished writings, for they are already welcomed by all editors. In default of such jewels, my ideal interdisciplinary journal would accept only papers in each discipline with more than average relevance to the other.

The first number of *Brain, Behavior and Evolution* does not, by this standard, do very well. It contains no interdisciplinary paper. Of the four papers in it, one is on behaviour, and is indeed of more interest to the neuro-