Book reviews

Multiple Sclerosis *British Medical Bulletin*. Volume 33 No. 1. Edited by J. S. Porterfield. (Pp. 88; £5.00.) The British Council, 65 Davies St., London W1Y 2AA. 1977.

What an exciting review this is. The pace of advance in multiple sclerosis research is becoming breathtaking, and the apparently irreconcilable views are coming together in a consensus. It seems likely that virology, immunology, biochemistry, and genetics will all be contributors to the denouement which cannot be far off. This issue of *British Medical Bulletin* is an outstanding survey of recent research, placed in the context of accepted epidemiological and pathological data by E. D. Acheson and C. W. M. Adams respectively. W. I. McDonald and A. M. Halliday review the diagnosis, including physiological tests, and provide criteria for a classification which could usefully be adopted by all clinical workers so that therapeutic trials may be comparable. Their valuable review of physiological tests, in which they were pioneers, stresses the importance of conduction block rather than slowing of conduction velocity. K. B. Fraser gives a good summary of the evidence for a virus disease, probably acting immunologically. The association with measles remains tantalising, and the status of the Carp MS-associated agent is very doubtful. Dr Margaret Haire, his colleague from Belfast, where so much of this work has been done, dismisses the significance of virus antibodies with special reference to measles. The difficulty, stressed by E. J. Thompson, is that the oligoclonal pattern of γ -globulin in CSF cannot usually be absorbed by measles antigen (unlike subacute sclerosing panencephalitis). There is still no diagnostic laboratory test, and a Lange gold curve has the virtues of speed and simplicity.

Immunological abnormalities of cellular and humoral types are reviewed by Stella Knight and E. A. Caspary. It is not possible at this time to decide between responses to paramyxovirus and some general alteration in cell-mediated immunity, possibly genetically selected. Things are not as simple as they would seem. Antibody may be protective rather than myelinoclastic,

and interference with nerve transmission might be independent of demyelination. The new test system on the rabbit eye (permitting direct *in vivo* testing of cells and sera) is a major new tool. It is being exploited by H. M. Wiśniewski who gives a clear account of the immunopathology of experimental demyelination. Is the oligodendroglial cell damaged as a 'by-stander' in a delayed-type hypersensitivity reaction, caused by any antigen which finds its way into the CNS? The answer to this one question is critical to the assessment of all the other papers, and also to any decision to use more aggressive immunosuppressive therapy.

A. N. Davison and M. L. Cuzner review the immunochemistry and biochemistry of myelin. Perhaps it is because there is so much material to digest, but I found this paper the most difficult to correlate with pathology. Two decades of work on the chemistry of myelin has not been helpful, and the work on demyelination leads straight back to immunological responses but with some emphasis on immune complexes in blood vessels. If fatty acid metabolism plays a role in the aetiology of multiple sclerosis, is it directly metabolic or by inhibiting lymphocyte responses? J. Mertin and J. Meade stress the latter, providing a modicum of theoretical support for the various forms of treatment reviewed by L. A. Liversedge, still plagued by unsatisfactory control of clinical trials.

The association between multiple sclerosis and HLA antigens, particularly A3, B7, and Dw2, is reviewed by J. R. Batchelor. An early contributor to this exciting new method of detecting gene-linkage, Dr Batchelor's article should be read by all who require a survey of this new field. His article is a model of clarity combining introductory material with advanced conclusions so that all who read may understand.

Multiple Sclerosis, introduced by J. H. D. Millar of Belfast with a nicely balanced survey of the contents, is a landmark. It is being reviewed more fully than is usual for a periodical because it is exactly the sort of survey required. It is short, authoritative, and timely.

J. A. SIMPSON

Basic Neurochemistry Edited by G. J. Siegel, R. W. Albers, R. Katzman, and B. W. Agranoff. (Pp. 825; illustrated; £9.50.) Little, Brown: Boston. 1976. Although it has a large number of authors, this book in general has a unified approach focusing where possible on the working brain. Allowances, of course, must be made for the different stages reached by various branches of the subject. This new edition contains additional chapters on photo-reception, cyclic nucleotides, prostaglandins, axoplasmic flow, and endocrine effects. After substantial sections on morphology, neural membranes, transmission, metabolism, and physiological integration, the remainder of the book (almost half of its length) consists of material on neurological and psychiatric disease, including new chapters on seizures and comatose states, and on mucopolysaccharidoses. These emphases on medical topics make the book a valuable neurochemical text and reference work for clinically orientated readers. Not least among its attractions are clarity and readability. Few textbooks can be read with much pleasure. This one can. Indeed, while making spot checks in different topics I often found myself browsing. Strongly recommended.

G. CURZON

The Autonomic Nervous System, 2nd revised edition. By O. Appenzeller. (Pp. 403; illustrated; \$47.95, Dfl.125.) North-Holland Publishing Company: Amsterdam. 1976.

It is a pleasure to welcome the second edition of this book which represents the results of extensive study of the literature on the autonomic nervous system in animals and man. It is a mine of information, and the information extends well beyond the autonomic nervous system. Who would expect to find in a book of this title sections on 'congenital absence of muscles', Sprengel's deformity of the shoulder, or arthrogryposis multiplex congenita? In none