BOOKS RECEIVED

Chemotherapy of virus diseases, vol. 1

Ed. by D. J. BAUER. 1972. Oxford: Pergamon Press. Pp. 431. £8.75.

This book is section 61 of an enormous "International Encyclopaedia of Pharmacology and Therapeutics", designed to run to 250 volumes in all. In it are included detailed reviews of the antiviral activity of thiosemicarbazones, benzimidazole derivatives, guanidine, purines and pyrimidines, and of virus-induced interferons. Readers wishing to know about other interferon-inducers, or about amantadine compounds, will have to wait for volume 2. Most chapters are in monograph form, attempting complete cover of the available literature and useful mainly to research workers in the field of antiviral chemotherapy. The section on purines and pyrimidines is especially notable, beginning with the first observations, in 1949 and 1950, of inhibition of vaccinia in chick embryos and of plant virus-tumours by compounds of this group, and culminating in 90 pages of tables listing the reported antiviral activity of purines and pyrimidines on human and animal viruses in mammalian tissue-culture systems. The chapter on virus-induced interferons is an exception to the general format, being a more general review of a type suitable for a wider readership than those engaged in research on antiviral agents. It contains a well balanced account of the properties and mode of action of the interferons, with a summary of their possible use in therapy and prophylaxis, and a few speculations about the biological significance of these fascinating substances.

For those interested in the applications of antiviral drugs in man, the book contains only a few sections of interest. This is partly because two of the compounds discussed, the benzimidazoles and guanidine, have not yet found any application in man, although their capacity for selective inhibition of some picornaviruses has made them useful tools in research. Even where clinical applications exist, however, their treatment in this book is patchy. A short and uncritical account of the uses of idoxuridine and cytosine arabinoside in human disease contrasts with a detailed review of the uses of thiosemicarbazones in prophylaxis and treatment. It is perhaps surprising that the trials of methisazone in the prophylaxis of smallpox carried out in Pakistan and published by Heiner in 1971, which gave results so much less favourable than those of the earlier investigations, could not be included in a book published at the end of 1972.

This book, with its forthcoming companion volume, is likely to be of interest mainly to specialists, by providing compendious reviews of the antiviral drugs and their mechanism of action.

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Australia antigen

Ed. by J. E. PRIER and H. FRIEDMAN. 1973. London and Basingstoke: The Macmillan Press Ltd. Pp. xvii and 236; 71 text figs. £7.50.

This small book offers an excellent and concise description of Australia antigen and its relationship to disease. The opening chapter, by B. S. Blumberg, describes the fascinating history of the steps which led him and his colleagues to the discovery of the antigen and the recognition of its association with serum hepatitis. He also discusses the possible mechanisms of the carrier state and the evidence for an inherited trait that confers susceptibility to persistence of the antigen. The subsequent chapters, by distinguished experts in this field, deal with the properties of the antigen and the methods of its identification and with the various forms of acute and chronic hepatitis that have been linked to it. Good histological descriptions are given of these diseases together with the evidence that has been marshalled for aetiological association with Australia antigen and its related virus. Some discussion, however, of the pathogenetic mechanisms that have been suggested, particularly the possible damaging effect of antigen-antibody complexes, could have been usefully included. A. I. Sutnick discusses the reasons for the increased frequency of the carrier state in leukaemia, Down's syndrome, lepromatous leprosy, and in patients on chronic haemodialysis, as well as the possible relationship with hepatoma.