BOOKS RECEIVED

Dictionary of immunology

By F. S. ROSEN, LISA A. STEINER and E. R. UNANUE. 1989. Macmillan Press, Basingstoke, Pp. xii and 223. £25.00.

When immunologists talk, the outsider could be forgiven for thinking he was listening to a foreign language, so an up-to-date dictionary seems quite appropriate. This one, compiled by three eminent American immunologists, provides clear entries on some 2000 words, names and topics used in immunology, ranging from crisp 3-line definitions to mini-articles (e.g., MHC: 2½ columns; T cell receptor: 7 columns; immunoglobulin: 19 columns). Simple figures and chemical formulae are used sparingly but to good effect, and there are lists of common abbreviations and CD markers. Cross-indexing is by an admirably clear differential type system and the whole book shows signs of great care and thought at every stage. At £9.95 the paper-back edition is cheap enough to compete with most text books, though it cannot of course replace these where the “overall view” of the subject is called for. Its appeal will be to those who already have a smattering of the language and need a quick reminder of what means what, and I suspect it will become a standard item in most medical and biological departments, and in great demand in libraries.

J. H. L. PLAYFAIR

Syphilis serology

By G. D. WASLEY and HELEN H. Y. WONG. 1989. Oxford University Press, Oxford. Pp. x and 158. £20.00.

Tests for reagin and treponemal antibodies are requested as part of the investigation of a wide range of illnesses in which syphilis may enter into the differential diagnosis and also for routine screening of groups of patients such as those attending antenatal clinics and blood donor sessions. This book provides a comprehensive account of the subject with a wealth of technical detail about the various tests now available for the examination of blood and cerebrospinal fluid. Among the detailed descriptions of reagin tests, however, that of the rapid plasma reagin (RPR) test does not explain that it is the inclusion of EDTA and choline chloride in the stabilizing agent that enables plasma or unheated serum to be used, an important advantage when only limited laboratory facilities are available. For detection of treponemal antibody, the status of haemagglutination as the current standard method is noted, as is the key role of the Fluorescent Treponemal Antibody absorbed (FTA-abs) test for confirmatory purposes now that the Treponemal Immobilisation (TPI) test is rarely performed. Attention is drawn to the difficulties and limitations of tests for IgM antibody. Fluorescent microscopy techniques are described and reference is made to likely

future developments, including enzyme immunoassay and the use of DNA technology to produce *Treponema pallidum* antigen for serological tests.

There are useful sections on aspects of laboratory management, including quality control. On laboratory safety, the use of hepatitis B immunoglobulin is recommended after accidents with high-risk specimens, but there is no reference to hepatitis B vaccine which should be advised for laboratory workers handling large numbers of blood samples. A distinctive feature is the account in the introductory chapters of historical, clinical and epidemiological aspects of treponemal disease in man which will be of value to all those who provide a diagnostic service in a field that covers a wide range of medical specialities. There is also useful information on the microbiology of treponemes and on the immune response. This account of good practice in relation to syphilis serology can be recommended to those requiring guidance both on technical details of the tests and on the interpretation of results.

G. C. TURNER

Electron microscopy in viral diagnosis

By E. L. PALMER and MARY L. MARTIN. 1988. Wolfe Medical Publications, London. Pp. 194. £73.00.

Before reviewing this book, I must declare an interest. As co-author of a book with similar aims, I am conscious of the ways the two books differ in approach but I hope intending purchasers will make their own comparisons.

This is a well-produced book with many of the micrographs making a stunning effect through high technical quality (interspersed with the occasional lemon, though). They include a considerable number of negative contrast photographs prepared by the pseudo-replica technique, augmented by thin section preparations of some of them. There are also helpful diagrammatic outlines of the replication cycles of some important viruses, and these will be very useful to teachers of basic virology. The coverage is comprehensive, with no significant omissions. So why do I find the book disappointing?

I would disagree with the authors' approach in several respects. Firstly, the micrographs are printed at a variety of magnifications, some given to an unrealistic six significant figures. This variation makes comparison between viruses far from easy. For example, the adjacent figures 25 and 26 illustrate immune aggregates of Norwalk and coxsackie B viruses, respectively. To a casual glance the latter viruses appear the larger, although the reverse is true, and this is because they are printed at nearly twice the other's magnification. Also, some micrographs have been printed at magnifications too low for surface detail to be clearly delineated.

Secondly, many of the viruses illustrated are from cell-culture preparations. These show impressively high concentrations of virus but give a very misleading impression of the amount likely to be found in material taken directly from patients. The authors comment that

the pseudo-replica technique produces preparations of cleaner virus particles in higher concentration than other techniques. This may be so, but I doubt if it makes *that* much difference.

Thirdly, I am not convinced that the pseudo-replica technique is convenient for handling a large number of daily specimens. For over 25 specimens per day it would be too cumbersome, and this confirms my doubts that the book is correctly titled. It *is* a study on the morphology of viruses that infect man and a resumé of useful techniques for both identifying them and analysing their antigenic structure, but it may not be very helpful to diagnostic microscopists. Nevertheless, many of the figures will be

very useful as teaching material—perhaps the publishers could be persuaded to market a selection as projection slides?

Finally, each chapter (on a different technique or virus group) is fully referenced although the authors have not found a logical solution to the problem of ordering the viruses. Their's is apparently to be totally random making the index essential, but also making it very difficult to find other viruses similar to the one you've found in the specimen. it is a book worth evaluating carefully against your needs but bound to be fascinating to anyone interested in what viruses look like.

C. R. MADELEY