

Book Review

ELISA in the Clinical Microbiology Laboratory. T. G. WREGHITT, P. MORGAN-CAPNER, eds. 305 pp. Colindale: Public Health Laboratory Service, 1991 (£20.00). ISBN 0 901144 24 X; and Cambridge University Press, 1991 (£20.00). ISBN 0 521 405777.

Enzyme immunoassays for both antigens and antibodies are gaining increasing use in the field of clinical microbiology, and many laboratories are considering such techniques. To help them and us the PHLS has published this practical handbook, which in 20 chapters evaluates the application of ELISA techniques in the diagnosis of a wide range of viral, bacterial, protozoan, fungal and parasitic infections.

The book has four general chapters, 'Techniques', 'Conjugation', 'Quality control and standardization' and 'Enzyme amplification', giving information applicable to any ELISA test. These are followed by chapters dealing with specific pathogens. Of the former I especially liked the chapter on quality control, an important but often overlooked part of ELISA serology. What I missed were comments on the use of IgG avidity measurement as a diagnostic tool, a method recently applied to the diagnosis of, for example, rubella and toxoplasmosis.

The chapters dealing with specific pathogens are written so that they can be read independently. This means that a lot of basic information such as chessboard titration of antigens and conjugates is repeated in each chapter. On the other hand, a reader who is interested in rubella (for example) can read just that chapter without needing to go through the whole book to find all the necessary information. Most chapters have a short overview of the literature followed by cookery-book-type instructions, which give the reader advice about conducting the test. The writers are experienced users of ELISA tests, and when possible they have tried to give the reader practical hints and personal opinions, which are very useful and usually not available in original articles.

Although the book covers most of the important microbial pathogens for which ELISA are used, some common applications are missing. In addition to hepatitis and HIV, which were left out because the diagnostic tests are mainly based on commercial kits, virological applications not mentioned include antibody detection for respiratory viruses, measles and arboviruses. In bacteriology, pertussis and yersinia are examples of pathogens which could have been included.

In 12 of 20 chapters the latest references given are from 1985 or 1986, and in most of the others the few most recent ones are autoreferences. This leads to the conclusion that there has been an unfortunately long delay between the writing of the chapters and the publication of the book, something which hopefully will be improved for the second edition. However, this does not mean that the present book is outdated. On the contrary, it is an excellent guide to anyone working with ELISA tests in clinical microbiology.

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