

*ELISA: Theory and Practice.* JOHN R. CROWTHER. Pp. 256. New Jersey, USA: The Humana Press, 1995, US\$59.50.

Since the initial development of enzyme linked immunosorbent assays (ELISA) some 25 years ago, this immunoassay has become one of the most utilized assays in not only infectious diseases but across a broad spectrum of disciplines which require quantitation of biological material present in minute amounts in various fluids. Because of such wide applications a huge body of literature is already available. Thus a book which synthesizes certain aspects for either the initiated or uninitiated should be useful. The major strength of this book is the practical exercises and protocols given for the most common ELISA systems in practice currently and would be highly useful training exercises for the uninitiated in this particular assay.

The book has been divided into two main sections. The first section (chapters 1–4) attempts to build fundamental knowledge required for development of the ELISA assay and application to the field of infectious diseases epidemiology. These include basic immunology, basic principles of ELISA, stages in ELISA and theoretical considerations in setting up ELISA. The second section (chapters 5–8) deals with the actual protocols and data interpretation. The practical exercises describes protocols for setting up of the variations of ELISA which include direct ELISA, indirect ELISA, capture ELISA, and competitive ELISA. Most of the information is well referenced and additional information can be easily obtained from those references. The protocols given in chapters 5–8 would be primarily useful for laboratory personnel where an investigator is setting up ELISA methodology from scratch. These chapters form the backbone of the book and would be an asset in any laboratory regularly training personnel in ELISA methodology. These protocols were probably given as instructions in a training session and can be used as such. The second section in addition to giving protocols tends to repeat a lot of the theoretical information already covered in the first sections leading to redundancies and repetition in this section. Also information in trouble shooting is limited. The last chapter (chapter 9) dealt with preparation of reagents such as preparation of conjugates but here the protocols are given for individuals with an immunochemistry background and for use in a laboratory with a biochemistry or immunochemistry set up. Also some of the conjugation methods are dealt with more at the theoretical level rather than as protocols. An uninitiated investigator using the protocols would have to go to the specialized articles referenced.

I would recommend this book for those interested in starting this methodology from scratch and initiating training of laboratory personnel in this methodology.

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*The Microbiology and Epidemiology of Infection for Health Science Students.* P. MEERS, J. SEDGWICK, M. WORSLEY. Pp. 330. London: Chapman and Hall, 1995, £14.99.

New and resurgent microbial diseases continue to hit the headlines and it is therefore vital that student healthcare professionals achieve a good understanding of microbiology during their training. This book provides an excellent introduction to the subject that will also appeal to science students who have an interest in medical aspects of microbiology. The book is wide-ranging in its subject matter and very readable. There are 32 concise chapters organised into nine sections: I found this to be a useful and logical arrangement of what can easily become a confusing mass of information. Parts 1 and 2 provide an overview of microbiology and the ways in which humans and microbes interact. Parts 3–6 cover bacteria, viruses, fungi and parasites (including insects) in each case giving brief details of specific organisms and their pathogenesis, diagnosis, treatment, epidemiology and control. Part 7 then considers infections from the point of view of infection sites, i.e. cardiovascular, urinary tract, etc. Finally, parts 8 and 9 consider the general principles of diagnosis and treatment of infections and the prevention of infections in the community and in medical care. Extra snippets of information or historical anecdotes are given in boxes throughout the text. Illustrations have been kept to a minimum – no photographs, no shock-horror colour images – just a few simple line drawings. This is somewhat unusual for a modern textbook but does not detract from the usefulness of the book. The price

has been set at a level which will enable many students to purchase their own copy: they will be getting good value for their money.

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*Borna Disease*. H. KOPROWSKI, W. I. LIPKIN, eds. Pp. 134. Berlin, Heidelberg: Springer-Verlag, 1995. DM 150.00; öS 1,170.00; sFR 144.00. ISBN 3-540-57388-7.

This slim volume (number 190 in the Current Topics in Microbiology and Immunology series) is a timely monograph on an emerging disease of increasing importance. Although Borna disease was first described more than 200 years ago as a fatal neurological disease of horses, it is only relatively recently that major progress has been made in our understanding of the disease itself and the virus that is the aetiological agent. Progress continues apace, and the confirmation that Borna Disease Virus is present in human patients with certain psychiatric diseases should lead to a further increase in research effort. This will inevitably mean that this monograph will rapidly become outdated. Indeed, apart from the recent work on human psychiatric disease, cloning and sequencing of the viral genome, and visualization of the virions by EM (which all get an honourable mention as Notes Added in Proof) progress has already overtaken the monograph with the identification of a Borna-specific glycoprotein, gp18. This is not a criticism of the monograph, just a fact of life in the fast lane of research: indeed everyone concerned with the production of the volume is to be congratulated for its immediacy.

The monograph is presented in seven chapters, the first covering molecular biology of the virus which, in view of the recent flood of new data and ongoing work, is doomed to early obsolescence. Nevertheless it is, like the rest of the book, well-written, well-edited and well-referenced. There follow chapters on natural and experimental infections in animals, and the recently described disease in ostriches. The next three chapters detail the neuropathology and pathogenesis, immunopathogenesis, and behavioural disturbances and pharmacology. The final chapter describes the evidence for the role of Borna Disease Virus in various clinical syndromes in man.

This monograph is ideal reference material for anybody already working in the field, and for those wishing to begin working in the field. It should also be of interest to virologists in general and to those interested in human central nervous system diseases. The monograph would have benefited from colour reproduction, particularly for some of the illustrations in the Neuropathology and Pathogenesis chapter, but this would have added to the already horrendous cost of this book. I will regularly be dipping into my complimentary copy.

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*Guidelines for Standards in Laboratory Practice in Medical Microbiology*, publication no. 3. S. MEHTAR, ed. Pp. 30. St Leonards on Sea, East Sussex: Association of Medical Microbiologists, 1994, £10.00.

Research, the subject of this journal, is about what it is right to do and audit about doing it right. Standards therefore evolve from research, are relevant to all readers, and are essential for audit. The Association of Medical Microbiologists are to be congratulated on trying to produce standards in the heartland of clinical microbiology. Anyone who writes gold-standards (or perhaps in the cash-strapped NHS it should be brass-standards) needs to be sure that they represent the best (or an acknowledged deviation from the best) rather than what is 'usually' done or what is personally acceptable to the authors. Every microbiology audit group should perhaps now audit their practise against these standards, and report if they consider the standards are wrong. Health care purchasers will not go far wrong now if they adopt the highlighted standards. I hope the standards will be provided on (two sides of) A4 as a check list that can be given to the purchaser.