histochemical staining and most histopathologists have gained experience in the interpretation of these preparations. Major factors in this development have been the application of immunohistochemical techniques to routinely fixed and embedded material, the commercial availability of a range of reliable polyclonal and later monoclonal antibodies and recently the introduction of a rapidly growing number of monoclonal antibodies suitable for use on fixed embedded tissue. Wick and Siegal's book is a multiauthor review of this developing area and is aimed at the diagnostician rather than the investigator so that most chapters have a practical slant. Discussion of each of the major antibodies includes sections on diagnostic applications, use in differential diagnosis and pitfalls in interpretation. The desirability of using panels of antibodies rather than single reagents is repeatedly stressed and interpretation of panel results is emphasized, frequently by the use of informative tables. Where appropriate polyclonal antibodies are included in the discussion. The biochemical and immunological background is concisely presented. There is a good introductory chapter on theoretical and technical considerations including a list of the source and performance of the 35 monoclonal and 44 polyclonal antibodies in use in Dr Wick's laboratory. There are comprehensive chapters on myeloid and lymphoreticular antibodies and on leukocyte common antigen. The intermediate filament antibodies are well covered although the section on cytokeratin is based on findings with tissue fixed in the unusual methyl Carnoy fixative. 14 additional chapters discuss subjects such as prostatic antigens, S-100 protein, blood group and human histocompatibility antigens, neuroendocrine markers, oestrogen receptors, placental alkaline phosphatase and carcinoembryonic antigen. Final chapters summarize the current state in the quest for organ specific and malignancy specific antibodies. The book is well laid out and has plentiful illustrations, in general well chosen, although the difficulty of illustrating some immunoperoxidase results in black and white is evident in several uninformative full page illustrations. References are well chosen and up-to-date and the index is comprehensive. The authors have succeeded in drawing together much of the recent information on the major diagnostically relevant antibodies to produce a useful ready reference for the interpretation of diagnostic problems. The text which is aimed at both experienced and trainee pathologists will be a useful addition to the shelves of any diagnostic histopathology library.

D.S. O'Briain

ELISA and Other Solid Phase Immunoassays: Theoretical and Practical Aspects

Edited by D.M. Kemeny and S.J. Challacombe

John Wiley & Sons; Chichester, 1988

367 pages. £24.95

This multi-author book sets out to give a theoretical and practical guide to the increasingly popular use of solid-phase supports and enzyme-mediated detection systems. The contents consist of fifteen chapters presented in a number of sections which range from basic aspects to applications in microbiology.

Much of the emphasis of the contents is directed towards immunoassays carried out in microtitre well plates. Other solid-phase systems, such as dot-blotting on nitrocellulose, which have gained a distinct foothold, are unfortunately given little consideration. However, for microtitre well plate assays Kemeny and Challacombe have assembled a wealth of information and advice on their development and use. Parameters of the basic technique are given a critical viewing from a number of standpoints including the effect of protein binding

to solid phases, the role of antibody affinity, quantitation and the use of enzyme-mediated endpoints (both conventional and amplified). Thus, appropriate chapters and the basic recipes given in the appendix should allow one to establish at least a simple ELISA system of one's choice and to be aware of pitfalls and problems. However, such essential reading is spread over a number of chapters and there is frequent repetition of detail. I appreciate that the editors comment on their approach in the Preface, but I feel that these overlaps are excessive and that the theme of the book would have benefitted from adequate cross referencing.

Some recent developments are well catered for. For example, two chapters detail how ELISPOT and ELISA plaque assays are replacing haemolysis-based tests for antibody secreting cells. The chapter by Kemeny on the assay of IgE antibodies is indicative of how modifications such as 'sandwich' ELISAs can overcome sensitivity problems, including the disparity between ELISA and radioimmunoassay in measuring antibody.

I find that the thrust of the book is offset by other factors. Several chapters include detailed practical protocols whilst others (e.g. on chemiluminescence) are but overviews. I fear that the distinction between the two chapters on amplification systems may be lost to the inexperienced simply through lack of introductory explanations. There are several unnecessary printing errors in the text.

These quibbles apart, I feel that this book can be a useful and up-to-date addition to the literature. It is perhaps the mark of an advancing field that essential information in such texts has to be gleaned from a number of chapters and not from a simple protocol alone.

A.J. MacGillivray

Edited by D.M. Kemeny and S.J. Challacombe Wiley Medical Publ. Chichester, UK, 1988, 355 pp., f24.95 This book of 367 pages comprises 15 chapters and has 25 contributors, representing the immunodiagnostics industry and, especially, academia. Immunoassay has become one of the largest single areas of medical laboratory practice. It is not surprising, therefore, that each year witnesses a new crop of books on the topic. Some of these books are the proceedings of national or international meetings and typically suffer from the uneveness of such types of publication. Others are the result of a spec Competitive ELISA and other formats. Besides the standard direct and sandwich formats described above, several other styles of ELISA exist: Competitive ELISA is a strategy that is commonly used when the antigen is small and has only one epitope or antibody binding site. One variation of this method consists of labeling purified antigen instead of the antibody.Â In-cell ELISA is performed with cells that are plated and cultured overnight in standard microplates.Â Butler J.E. The Behavior of Antigens and Antibodies Immobilized on a Solid Phase. In: M.H.V. Van Regenmortel, ed. Structure of Antigens. Boca Raton, FL: CRC Press, 1992: 209-259. Vol.1, 209; CRC Press, Inc. Lequin, Rudolf M. Enzyme immunoassay (EIA)/enzyme-linked immunosorbent assay (ELISA). Edited by D.M. Kemeny and S.J. Challacombe. John Wiley & Sons; Chichester, 1988 367 pages. f24.95. This multi-author book sets out to give a theoretical and practical guide to the increasingly popular use of solid-phase supports and enzyme-mediated detection systems. The contents consist of fifteen chapters presented in a number of sec-tions which range from basic aspects to applica-tions in microbiology. Much of the emphasis of the contents is directed towards immunoassays carried out in microtitre. well plates. Other solid-phase systems, such as dot-blotting on nitrocellulose, which have