biologists, and biologists, with a strong contribution from Oxford. The first chapter is a comprehensive review (by Brandtzaeg) of tissue preparation methods and particularly fixation; and each of the subsequent chapters is devoted to one technique. Those covered include double-label immunofluorescence (Pryzwansky); the unlabelled antibody peroxidase-antiperoxidase (PAP) method (Burns); the protein A-gold technique (Roth); double immunoenzymatic labelling (Mason and Woolston); and the use of proteolytic enzymes (Finley and Petrusz). Each chapter has a wide range of relevant references, and methods suitable for light and electron microscopy are discussed. Although much of the text consists of methodological detail, it is still very readable. In the current rush to use antibodies with tissue sections, much work of poor quality is being carried out, and this volume should be a considerable help to those in difficulty. Even the experienced investigator will learn a great deal from it. It is a well-produced book, with good illustrations, which fills a gap in the literature. It is highly recommended.

RC CURRAN

Clinical Cellular Immunology. Molecular and Therapeutic Reviews. Ed AA Luderer and HH Weetall. (Pp 391; illustrated; £36.75.) John Wiley & Sons Limited. 1982.

"Clinical Cellular Immunology" is a collection of review articles by different authors. It aims, in the words of its editors, "to create a work combining aspects of cellular immunology with their clinical applications." The great problem which the authors face is that most of the relevant work on cellular immunology has been done in experimental animals. The clinical applications of this work are by no means clear, and few of the chapters bridge the gap between experimental observations and clinical relevance. The first two chapters are very good accounts of current basic immunological concepts.

I suppose it would be difficult to deny that most advances in immunological knowledge have indirect clinical implications, in that understanding is the first step to prevention or cure. But certainly the title of the book made me expect a more clinically orientated work. Even chapters 3 and 4 by Sigel and colleagues on immunosuppressive agents (some 150 pages in the 390 page work) hardly mentions clinical data—there are two and a half pages of

glossary to help understand the wealth of experimental information.

The chapter on non-Hodgkin's lymphoma seems particularly poor in defining these conditions in the light of modern knowledge of B cell differentiation—although this is still a somewhat contentious area. Chapter 6 by Burek and his colleagues is a useful reminder of the evidence for the involvement of cell mediated immunity in autoimmune disease, but makes little effort to encourage new perspectives or to indicate the practical consequences of these observations. The chapter on transfer factor is largely theoretical and gives no indication of how clinically useful (or useless) this procedure is. The final chapter on "immunological tests for diagnosis and monitoring of defects in cell mediated immunity" by Fudenberg and colleagues is remarkably sketchy—almost an afterthought.

This book is not recommended for personal purchase, but it may be a useful supplement to a departmental library.

RA THOMPSON

Immunofluorescence Techniques in Diagnostic Microbiology. PHLS Monograph Series no 18. Ed Joan MB Edwards, CED Taylor and AH Tomlinson. (Pp 117; £3.50.) HMSO. 1982.

This monograph provides a succinct compendium of the immunofluorescent techniques which have been accepted for routine use in the Public Health Laboratory Service and associated Reference Laboratories. There are short descriptions of equipment, standardisation, and labelling procedures, and a series of sections describing the methods used for detecting different micro-organisms and antibodies. Most of the established reference and routine uses of immunofluorescence are described except, unfortunately, those for the detection of legionella organisms and their antibodies. There is a short comment on interpretation in each section, but the monograph is essentially concerned with techniques which are described with precision and clarity.

This collection of well-tested methods, resulting from the extensive experience of the PHLS will be very welcome. It will provide an authoritative source of methodology and will be valuable to laboratories setting up their own procedures.

PJ SANDERSON

Urinary Tract Infection. Rosalind Maskell (Pp 144; illustrated; £15.50.) Edward Arnold. 1982.

In the small compass of ten chapters Dr Maskell has reviewed the pathogenesis, diagnosis, localisation, natural history, management, and antibiotic treatment of urinary tract infection, has considered the particular problems of such infections in children, and in adults at home and in hospital, and tuberculosis of the urinary tract. The book is well written and will be appreciated by specialist microbiologists and infectious diseases clinicians, and also by clinicians with a general interest in the subject. That is important because of the significance of UTI in all fields of clinical practice.

The choice of subject matter is necessarily selective but the 240 or so references listed are fairly chosen to present different views. Dr Maskell's own contributions to the subject are, not surprisingly, given prominence with considerable discussion of the importance of micrococci and capnophilic organisms as pathogens. Although not all of Dr Maskell's opinions will be accepted by those engaged in research on the subject, that is not a reason for not reading her stimulating book. It should be available in all medical libraries.

RN GRÜNBERG

Microanalysis in Medical Biochemistry. 2nd ed. IDP Wootton and Heather Freeman. (Pp 297; illustrated; £9.50.) Churchill Livingstone. 1982.

It is a pleasure to welcome a completely rewritten edition of this laboratory bench book after a long interval. The authors have been assisted by a number of distinguished contributors. The new format is clearly printed and it is easy to find the section one requires; there is a good index.

As before, the well tried colorimetric, nephelometric, and spectrophotometric methods which are quoted in some detail, relate to basic apparatus to be found in reasonably equipped laboratories in any part of the world. Specialists working in more sophisticated laboratories using complex continuous-flow, discrete sampling, and centrifugal analysers, (reference to which is made in this edition) will find that this book still has an important place in their libraries because of the wisdom based on many years of experience expressed in its pages. As a practical training manual it probably has no equal for any person, sci-

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entific or medical, coming new to a clinical biochemistry laboratory.

New or rewritten sections include one on normal or reference values, on the handling of infected samples, and on protein measurements including "rocket electrophoresis". There are many new items amongst the other analytical methods described. Nevertheless it is a pity that the authors were unable to mention, if briefly alternative methods for measuring alkaline phosphatase, amylase, ethanol, and immunoglobulins. The complete absence of any reference to immunoassays is missed, particularly as methods using non-radioactive labels are becoming readily available.

The change to SI units has been made; a nice touch in Table 1.2 is the expression in mmol of the approximate 24 hour output of water in the urine.

MG RINSLER

Morphometry. WA Aherne and MS Dunnill. (Pp 205; illustrated; £19.95.) Edward Arnold. 1982.

The aim of this book is to describe morphometric methods as they are applicable to light and electron microscopical examination of tissues, although one chapter in fact deals with the estimation of the volume of whole organs. The early chapters give a good introduction to measurement and the concepts of probability linked to geometry. They deal in fairly simple terms with the use of point counting methods for area measurements and linear intercept methods for lengths and surface areas. Such topics as preparation of tissues and care in sampling procedures are also well covered. Later chapters deal with aspects requiring a more mathematical approach in which it was possible to lose one's way. A chapter entitled "Historical Retrospect" traces the development of morphometry.

Specific questions are addressed with respect to morphometry of the nervous system, muscle, blood vessels, and testis. It is to be regretted, however, that a major area of morphometry in histopathological practice, namely, that of bone, is totally neglected. Only one reference from the bone histomorphometry literature is included in the whole book, and this is with respect to a general point about the effects of varying magnification on results obtained when surface area measurements are being made.

An appendix on statistical methods promised to be helpful on analysing such

aspects as the size of sample to be measured, but it was not easy for the non-mathematician. A further appendix dealt briefly with automated and semi-automated methods of measurement and one cannot help feel that these aspects should have been treated more fully in a book on morphometry written in the 1980s.

Overall, this book provides a good introduction to basic methods of measurement in its early sections and there are worked examples of methods which should prove of benefit to those who are not mathematically minded. Later parts deal with more specialist aspects, but do provide information on how to evaluate complex structures and use correction factors. The main thing in favour of the book is that it provides information on a large number of methods and formulae in one place, and in this respect it should provide a useful source of reference for those who wish to apply measurement to histology.

PA REVELL

Clinical Biochemistry. Contemporary Theories and Techniques. Vol 1. Ed Herbert E Spiegel. (Pp 232; illustrated; £19.60 \$29.50.) Academic Press Inc. (London) Ltd 1982.

This small book contains a number of chapters covering a wide variety of topics of contemporary interest to clinical biochemists including laboratory management, laboratory safety, kit selection and environmental monitoring as seen through North American eyes. There are also chapters on specific proteins and the measurement of blood pH and gasses. Much of the information will be familiar to readers but the presentation of the authors will give fresh insights particularly to those who are working for higher qualifications in this field. There is one topic which is more clinically orientated namely autoimmune disease as well as a section on Mathematics in Clinical Chemistry. Some of the topics in this last chapter are perhaps less suitable for a monograph of this kind since they are amply dealt with in standard textbooks. A future edition might pay more attention to the more complex mathematical treatment of spectrophotometric analyses, Bayesian analysis, and the use of discriminant functions.

Finally, is it really necessary for a book of this nature to cost nearly £20?

MG RINSLER

Proteins of the Brain and CSF in Health and Disease. Elizabeth R Einstein. (Pp 308; illustrated; \$37.50.) Charles C Thomas. 1982.

This volume presents the encyclopaedic view of perhaps the grandest Duchess of Neurochemistry. Her presence at international meetings was always felt and it is fortunate for us that she has distilled many years experience into a few hundred pages. The references are scholarly in that they include many cogent reports from Symposia not otherwise indexed. Much of the literature is European and all too often this is sadly lacking from certain writings emanating from North America. Her own personal research experience is amply sprinkled throughout the text. As was stated in the Introduction by Prof H Link, many otherwise excellent Departments of Neurology have serious deficiencies in their laboratory facilities for analysing CSF. Perhaps the local pathologist would improve the overall position by recommending this book to clinical colleagues for their combined edification.

EJ THOMPSON

Receptors, Antibodies and Disease. Ciba Foundation Symposium no 90. (Pp 312; illustrated; £22.50/\$35.) Pitman Books. 1982.

Ciba Foundation Symposia have a deservedly high reputation of bringing together, in a small intimate atmosphere, collections of scientists from often widely disparate disciplines, to review and discuss growing points in biology. Some symposia have become minor classics from which major new developments, sometimes leading to Nobel Prizes, have emerged.

The present symposium has conjoined clinicians and biologists with membrane-bound immunologists to discuss physiological and pathological conditions implicating receptor disorders. There are valuable contributions on insulin, thyrotrophin, acetyl choline, β adrenergic, prolactin, and growth hormone receptors. The presence of circulating β adrenergic receptor antibodies in atopic individuals, as expected, provoked considerable discussion. The contributions are a reasonably accurate statement of the present state of the art but the immunological contributions were rather muddled and the "... assertion that we will learn nothing new using monoclonal antibodies", may reflect the famous Ciba hospitality, a *cri de coeur* or a penetrating insight!