Book reviews

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!

It is a useful volume to review contemporary views on such disorders as autoimmune thyroiditis and *myasthenia gravis* but such is the rate of progress in receptor biology that the model of insulin receptors used as the frontpiece to the book places insulin protease as a plasma membrane ecto-enzyme, a view now no longer held. With these caveats the volume is a useful contribution but one which should be read in haste lest its views become too outdated.

TJ PETERS

The Kidney in Gout and Hyperuricaemia. Ed T Yü and L Berger. (Pp 292; illustrated; \$47.25.) Futura Publishing Company. 1982.

A compact account of the interplay between renal disease and hyperuricaemia is presented in this book. Unfortunately it adds little that is new. The material is arranged in a conventional manner beginning with a general overview by JH Talbott which is followed by chapters on the renal handling of urate (IM Weiner), renal function in gout (L Berger), renal pathology (SC Sommers and J Churg), the histopathology of renal biopsies (H Olivia and A Barat), nephrolithiasis (T Yü), radiological diagnosis (C Bloch and I Schlossberg) and a concluding clinical chapter by T Yü.

It will probably be of most interest and use to pathologists and it is unfortunate that the illustrations of histological preparations have had to be reproduced as half tone blocks.

In summary this is a useful reference book but one does question why it had to be produced when the field has been so fully covered in the fairly recent past.

RWE WATTS

Atlas of Post-Mortem Techniques in Neuro-Pathology. J Hume Adams and Margaret F Murray. (Pp 143; illustrated; £15.) Cambridge University Press. 1982.

This atlas is aimed at general histopathologists and mortuary attendants in the hope that removal and examination of the nervous system post-mortem will be done with the technical facility that allows clear observation and identification of pathological change. The reasons why the brain must be treated differently from other body organs are that, lacking a supporting connective tissue, it is friable and its complex anatomy often determines the disease process. Step by step we are led through removal and fixation of the CNS

with an excellent section on the eye and orbit but surprisingly little on the ear. There are good instructions for slicing and identifying the features of the brain but a major defect is the absence of any suggestions as to how to recognise the segments of the spinal cord once removed. A general pathologist would also feel the lack of any indication of standard block taking (for histology) in cases where the disease is obscure.

None of the illustrations is in colour which is always a serious drawback for an atlas and a great deal of space seems to be wasted, perhaps because of the method of production.

PETER O YATES

Post-Partum Hypopituitarism. HL Sheehan and JC Davis. (Pp 453; illustrated; \$69.75.) Charles C Thomas. 1982.

Who better than Sheehan to tell us about Sheehan's syndrome! He and Dr Davis, Reader in Endocrine Pathology in the University of Liverpool, have produced a classical account of the subject. The histology, pathogenesis, aetiology, associated lesions in other organs, functional and clinical aspects of pituitary deficiency and incidence of post-partum anterior pituitary necrosis are dealt with in depth and detail as well as other causes of pituitary deficiency and the early history of the subject.

Fundamental to the authors' concept of the pathogenesis of massive anterior pituitary necrosis is their histological demonstration in normal glands of a direct and significant arterial blood supply to the anterior pituitary parenchyma from intraglandular sinusoidal arterial branches that terminate in the sinusoids in addition to the portal venous blood supply. The major arterial supply is from the artery of the fibrous core, a branch of each loral (trabecular) artery. These arteries are sensitized in late pregnancy and may undergo occlusive spasm for a few hours in response to a general circulatory shock at delivery with resultant ischaemic necrosis both of the arteries to the fibrous core and the anterior pituitary parenchyma. The barrier of the infarcted anterior pituitary leads to distension and thrombosis of the portal vessels with secondary arrest of the portal circulation.

The authors describe, illustrate, and discuss in great detail almost every conceivable aspect of the subject, drawing on their own vast experience in addition to the world literature. This monograph with

nearly 100 illustrations, numerous tables and over 1400 references must be regarded as the ultimate source book.

I DONIAC

Clinics in Endocrinology and Metabolism. Vol 11, no 1. **Paediatric Endocrinology.** Guest ed John D Bailey. (Pp 275; illustrated; £11.75.) WB Saunders Company Ltd. 1982.

Ten chapters cover a selection of topics in endocrinology extending from fetal life to the end of puberty. They provide the reader with summaries of current knowledge in a number of major areas; disorders of the thyroid gland are not included. There is an excellent summary of hypothalamic pituitary function in the fetus and infant, and the chapter on gynaecological endocrinology of the paediatric and adolescent age group should prove particularly useful. Other subjects covered include the diagnosis and treatment of children with growth hormone deficiency and the use of anabolic agents in the treatment of short children. Problems concerned with puberty, ambiguous genitalia, adrenal cortex, hypoparathyroidism, hypoglycaemia, and diabetes mellitus are also covered. The use of biochemical investigations and methods of treatment are described with clarity. The lists of references are helpful and up to date. This volume is highly recommended and paediatricians, whether or not they are specialists in endocrinology, will find these authoritative accounts extremely helpful.

BE CLAYTON

Microbiology in Clinical Practice. D Shanson. (Pp 574; illustrated; softback £10.75.) John Wright & Sons Ltd. 1982.

There have recently appeared several books that set out to bridge the gap between the practice of microbiology and clinical medicine, giving advice on the use of the laboratory in the diagnosis and management of microbial disease. This is one of the best of them. After chapters on the classification of microbes, collection and transport of specimens, and the general principles of antimicrobial chemotherapy, there are 21 chapters on specific clinical topics. Of these, some relate to a body system, some to infection by a particular group of microbes, and some to infection in a particular type of patient. At the end, there is a chapter on disinfection and sterilization, and appendices on the properties of