Book reviews

Urinary Stones: Clinical and Laboratory Aspects. G Alan Rose. (Pp 272; illustrated; £16.95.) MTP Press Limited. 1982.

Urolithiasis is common. Some cases are amenable to specific treatment and others indicate important underlying disease and they can all be helped in some way by the type of careful investigation and well informed advice presented in this book. It is written in a refreshingly direct and concise style. The conclusions from the numerous epidemiological and physico-chemical studies are well summarised. The laboratory sections contain clear working instructions and valuable comments on methodology. The emphasis on the importance of stone analysis is particularly welcome. The clinical sections are full of sound advice and reliable information. Common and uncommon causes of urinary stones are equally well covered. The importance of close medical-surgical collaboration is emphasised by a chapter written by a urologist.

This book deserves a warm welcome and strong recommendation for both clinical and laboratory-based readers. The author's wide experience and enthusiasm shines throughout the text.

RWE WATTS

Functionally Differentiated Cell Lines. Ed Gordon Sato. (Pp 280; illustrated; £25.90.) Alan R Liss Inc. 1981.

Cell lines in tissue culture have become the corner-stone of much research into differentiation and cancer. This small volume provides an up-to-date summary of functionally differentiated cell lines available from laboratories throughout the world. Understanding the phenomenon of differentiation involves probing differences between cells that have undergone changes with their stem cells of origin. The various systems available for doing this are described in the fourteen chapters of this book. Firstly, cell lines that are dependent on hormones and so possessing hormone receptors are described. These provide model systems for hormone action at a cellular rather than physiological level. Neuronal and glial cell lines are described which exhibit a myriad of properties found in what to the pathologist is a very uniform organ, the brain. Perhaps the most fascinating cell lines of all are those of the teratocarcinoma, the stem cells of which can

differentiate into any functional state. Such cells gradually lose their ability to divide as they pass down the pathway of differentiation. Lymphocyte lines which have proven to be of considerable use in the production of monoclonal antibodies and T cell hybridomas are outlined.

As well as providing considerable information about the various cell lines available for research, the book provides useful references and addresses of cell repositories from which lines can be obtained. The book is a useful addition to the library of any laboratory undertaking research involving tissue culture.

K SIKORA

The Staphylococci. Proceedings of the Alexander Ogston Centennial Conference. Ed Alexander Macdonald and George Smith. (Pp 288; illustrated; £20.) Aberdeen University Press. 1981.

On 9 April 1880 in Berlin, Alexander Ogston described to the German Chirurgical Society his observations on the role of "micrococci" in the pyogenic process. The chapters of this book are based on lectures given at a conference in Aberdeen to celebrate the centenary of that occasion. After a foreword by Sir Ashley Miles the first paper "Alexander Ogston" by F Linde very appropriately comes from Germany where Ogston's early work was received more favourably than in Britain. This is followed by papers on Ogston the bacteriologist (G Smith) and Ogston and the Royal Army Medical Corps (J Baird). Of the remaining chapters some trace the progress of work on staphylococci since the time of Ogston and other are accounts of work by the contributors themselves: taxonomy (LR Hill), host parasite relationships (CSF Easmon), experimental infections (RR Marples), antibodies (P Oeding *et al*), epidermolytic toxins (JP Arbutnot and A Lyell), the hospital staphylococcus (RA Shooter), coagulase-negative ("the other") staphylococci (MT Parker), transfer and acquisition (OM Lidwell), ward accommodation for surgical patients (HG Smylie), orthopaedic infections (J McLauchlan), infections in the tropics (JE Jellis), nasal carriage in Antarctica (MDM Hadley), and treatment of severe infections (HP Lambert).

Three of the contributions were named lectures. In the Davidson lecture, Paul G Quie describes the work that he and his colleagues in Minneapolis have done on host determinants of staphylococcal infection and on components of staphylococci

that influence their ingestion and killing by phagocytes. The Marnoch lecture was given by WA Altemeier. He and his Cincinnati colleagues illustrate the remarkable versatility of the staphylococcus in a review of its behaviour as a successful commensal and as a pathogen. In the first Ledingham lecture, Sir Robert Williams pays tribute not only to John Charles Ledingham, who made notable contribution to the study of carriers in the epidemiology of microbial disease, but also to Ogston's coccus which so cleverly dodges most of our precautions against its spread and resists our efforts to unravel the mysteries of its toxicity. In doing this he inevitably pays tribute to those who have devised and refined methods for studying the spread of this organism, many of which have wide epidemiological application. The appendix is Dr Witte's translation of Ogston's 1880 paper (with a fold-out reproduction of its original illustrations) which most modern bacteriologists will not have seen and to which they will not have easy access.

Most conference reports have little scientific value because they concern work that has already been more fully described in original publication. This applies to several of the papers in this book; and similar versions of some of them also appear in the proceedings of the 4th International Symposium of Staphylococci and Staphylococcal Infections in Warsaw (see review in this *Journal*, February 1982, page 248). However, some of the papers have inherent value, and the event of the conference itself has historical importance. The report therefore deserves a place in microbiological libraries.

R BLOWER

A Colour Atlas of Surgical Pathology. Guthrie and R Fawkes. (Pp 229; colour illustrations; £35.) Wolfe Medical Publications Ltd. 1982.

Although an attempt is made to cover a full range of readers from undergraduate practising histopathologist, this atlas almost inevitably fails to satisfy either. The macroscopic photographs are in general of high quality, but the photomicrographs are less satisfactory, particularly the lower magnifications. The balance of material selected is eccentric—7 photographs of the pilonidal sinus and 4 pages on urinary stones, but only 1 photomicrograph of Hodgkin's. However, the most disappointing part of the book is the captions which are restricted to a description of the individual specimens shown, with no expansion

into the pathology of the disease in general and no discussion of the significant features shown. This book may be suitable for occupying the first week of an SHO appointment but otherwise it compares unfavourably with established rivals.

WK BLENKINSOPP

The Collection, Fractionation, Quality Control, and Uses of Blood and Blood Products. (Pp 126; Sw fr 15.) World Health Organisation. 1981.

Too many things feature in this book. It is not a compendium of present practice in the somewhat diverse chapters on which it depends. We thus have some unrelated topics such as care, selection and use of plasmapheresis donors which all transfusionists will welcome, followed by use and contra-indications of albumoid solutions which featured as a Council of Europe monograph last year. Similarly, a Council of Europe publication of the Use of Coagulation Products has been published and nothing unusual is presented for the informed reader.

The final section on immunoglobulins and their uses is welcomed since there is no established treatise where such information is collected together for easy access. Taking that the World Health Organisation has a remit to inform and help, this book will be of great value throughout the world if nothing else but to indicate what is topical, what can be achieved, and what is yet to be achieved. It is essential reading for blood transfusionists all over the world as a guide and friend.

With rapid changes in blood transfusion centre requirements for quality assurance and validation of data, this book comes at a most opportune time for many workers in the United Kingdom. It is well informed and easily read and can be confidently recommended.

R MITCHELL

Notes on Medical Bacteriology. Ed J Douglas Sleight and Morag C Timbury. (Pp 354; illustrated; paperback £5.95.) Churchill Livingstone. 1981.

Dr Sleight and Professor Timbury have written a book which fills a much needed gap in the texts available for medical students. Current teaching of microbiology is usually disease orientated whereas most student texts are microorganism orientated and many students have found this quite a problem. This text combines both

approaches to the subject and yet is still both reasonable in size and price. It is divided into four sections, these being bacterial biology, medically important bacteria, bacterial disease, and treatment and prevention of bacterial disease. It achieves all this in three hundred and fifty pages by using a note form which does not appeal to all teachers but is much favoured by students. In my opinion this disadvantage is more than compensated for by the amount of material contained within the covers. The text is eminently readable and mostly very sound; the few errors present are mostly minor and will no doubt be corrected when the book goes to a second edition (as I am sure it will). The biggest omission in my opinion are short sections on parasitology and mycology, which are not strictly bacteriology, but nevertheless are important subjects and not ones for which medical students should buy separate texts. (It is assumed that students will buy the companion virological text.) The other criticism is the extremely abbreviated reading list. It is headed "recommended reading" and lists only three books (Benenson, Christie and Topley, and Wilson). It would be much more valuable if an extended list of further reading be given so that students can delve deeper into sections of the subject which they find of interest.

Despite these criticisms I wholeheartedly recommend this text for all medical students; the authors are to be congratulated.

ELIZABETH SHAW

Metabolic Acidosis. Ciba Foundation Symposium no. 87. Ed Ruth Porter and GERALYN LAWRENSEN. (Pp 393; illustrated; £25.) The Ciba Foundation 1982.

The human body produces 150 g of hydrogen ions each day. How that huge amount of ions is produced, how their production and disposal is balanced to maintain a constant "milieu interieur", and what happens when that balance is disturbed was the theme of a meeting held last year under the auspices of the Ciba Foundation. A proper understanding of physiological and biochemical processes depends on accurate in vivo measurements. A major advance in this field has been the introduction of microelectrodes and NMR methods for measuring intracellular pH and all metabolism. There can be no better way of bringing oneself up to date in this

fundamental area than to read the crystal-clear expositions by Cohen and by Radda on these topics. They alone would justify having this book in one's personal possession. But there are further bonuses: excellent papers on the effects of acidosis on the heart, the brain, and the kidney; extensive studies on the major metabolic acidoses—ketoacidosis and lactic acidosis; and an invaluable appendix, prepared by Woods and Cohen, on quantitative aspects of substrate metabolism in humans. The book is a pleasure to read, especially the discussions which are always brisk, sometimes even acerbic, and convey an immediacy that makes one feel a participant at the meeting itself. This is a subject on the threshold of new developments and the information brought together in this book will prove helpful to anyone who has an interest in metabolic events.

RF MAHLER

Erythrocyte Membranes 2. Recent Clinical and Experimental Advances. Progress in Clinical and Biological Research vol 56. Ed Walter C Kruckeberg, John W Eaton and George J Brewer. (Pp 290; illustrated; £21.90.) Alan R Liss. 1981.

Because of pressure of work it was some time after receiving this book before I could read it. However, I found so many interesting new facts and ideas in it that it kept me up half the night! It is a Pandora's box of fifteen complex, but enlightening, reports on erythrocyte membranes of animals and man. As a haematologist I particularly enjoyed the contributions on the membrane skeleton in hereditary elliptocytosis, membrane asymmetry in sickle cells, the deformability of isolated erythrocytic membranes, the lectin control of membrane shape in discocyte $\rightleftharpoons$ echinocyte equilibria, and changes in sialic acid in senescence of red cells. Possibly more basic genetic data of the elliptocytic subjects would have improved the presentation and the discussions, though usually pertinent, were occasionally a little "loose", for example the mention of "hematuria" in marathons on page 169 (surely haemoglobinuria). However, this book is highly recommended to medical school libraries, progressive departments of haematology, and biochemists in general.

HB GOODALL