

says in his introduction, there is 'much food for thought'. How many pathologists realize that some fixatives used for electron microscope work remove 'up to 60% of the material originally present in the specimen and convert the remainder into chemically inert products'? The practising pathologist may be forgiven if he is bewildered by much of the technical data given in this book but salvation is at hand in the final chapter by Professor I. M. P. Dawson entitled 'Fixation, What should the pathologist do?'

M. S. DUNNILL

Practical Histochemistry By J. Chayen, L. Bitensky, and R. Butcher. (Pp. xiii + 271; illustrated. £3.95.) New York and London: John Wiley and Sons Ltd. 1973.

This book provides an admirable introduction to histochemical techniques. It makes no attempt to be an exhaustive text but concentrates on a few methods, extensively tested and criticized by the authors, which are explained in detailed but simple terms. The chapter on enzyme methods using cryostat sections is particularly good. There is a useful but not extensive list of references. The appendices are excellent and cover (i) the effect of fixation on enzymes, (ii) a list of chemicals used together with the names and addresses of suppliers, (iii) buffers, and (iv) a note on safety. The book represents good value for money to any trainee pathologist or technician.

M. S. DUNNILL

Practical Clinical Enzymology and Biochemical Profiling By Paul Wolf, Dorothy Williams, and Elisabeth Von der Muehl. (Pp. 580; illustrated. £7.75.) Chichester: John Wiley and Sons Ltd. 1973.

This book really consists of three sections. The first contains 25 methods of enzyme estimation and three enzymic techniques for the estimation of glucose, triglycerides, and uric acid respectively. Although the methods given are relatively commonly used, and presumably form part of the repertoire of the clinical laboratory of Stanford University Hospital, they are not necessarily the best available. The methodology of clinical enzymology still remains very much a personal choice and until recommendations are made with regard to standardized procedures, one cannot

consider the methods described as being the best.

The second section deals fairly fully, but not very critically, with the clinical interpretations of enzyme assays as well as their application in a number of clinical situations. These include neoplastic disease, obstetric and gynaecological practice, liver disease, pancreatic and salivary gland disease, reticulo-endothelial diseases, lung and heart disease, central nervous system disease, the effects of surgery, genito-urinary tract disease, bone disease, and skeletal muscle disease. The paediatric age group is also discussed, as well as enzyme abnormalities in body fluids, and enzyme histochemistry and its clinical applications. This section includes a number of quite unnecessary black and white illustrations which are frequently meaningless. One rather amusing example is a black and white picture demonstrating the occurrence of green plasma from a female donor taking oral contraceptive tablets.

The third section deals with a variety of profiles obtained by the use of an AutoAnalyzer 6/60 and an AutoAnalyzer 12/60, of the usual determinations for which these two instruments are employed. These are to be used for computer diagnosis. All the charts are faithfully reproduced including the misprint which gives the plasma uric acid in gm% where it ought to be mg%. To anyone with clinical experience, virtually each of these patterns would appear somewhat unreliable. For example, the pattern for hyperparathyroidism is shown as including a very much raised serum total calcium and an increased alkaline phosphatase. The poor computer would not be able to diagnose this disease in many of its commoner clinical presentations. It is a pity that the authors do not seem to appreciate that the laboratory does not make firm diagnoses; it can only provide important physical signs to be used in conjunction with the history, clinical examination, and other investigations. It is a good idea to have printed on the AutoAnalyzer charts those conditions which tend to give high or low values for each estimation. A useful part of this book are those few printed pages which indicate the commoner causes for high and low values of each of the 18 analyses.

In the reviewer's opinion, the book would have been much improved by omission of the biochemical profiles and the price would certainly have been more

reasonable. The enzymology is, however, sufficiently clinically orientated to be of some use to the clinical pathologist.

A. L. LATNER

Neurohumoral and Metabolic Aspects of Injury (Advances in Experimental Medicine and Biology, Vol. 33). Edited by A. G. B. Kovách, H. B. Stoner, and J. J. Spitzer. (Pp. xix + 666; illustrated. \$37.50.) New York and London: Plenum Publishing Corporation. 1973.

This volume records the proceedings of an international conference in Budapest in August 1971 on certain general body reactions to haemorrhage and trauma, reflecting the growing interest in traumatic pathology. The main topics were organ blood flow, fluid transfer, humoral reactions, metabolic effects, neural regulation, resistance, and adaptation. The general standard of the papers is high and the reviewer's main criticism is that none of the reports deal with injured man. A major growing point emerging is the central role of the hypothalamus in controlling and modifying various body reactions to injury. Those concerned with trauma and burns will be specially interested in this volume, but there are papers for a wider medical-scientific audience including pathologists. The book should be available in many medical libraries.

S. SEVITZ

Haemopoietic Stem Cells Ciba Foundation Symposium 13 (New Series) held in tribute to J. M. Yoffey. Edited by G. E. W. Wolstenholme and Maeve O'Connor. (Pp. x + 345; illustrated. Df. 44.00; approx. \$16.95.) Amsterdam, London, and New York: Elsevier/Excerpta Medica/North-Holland. Associated Scientific Publishers. 1973.

This book of 13 papers by various authors attempts to describe some of the properties of the haemopoietic stem cell. This is an elusive entity, about which there are more theories than certainties and this is therefore, a collection of ideas, not facts. It should not be considered a reference work on the haemopoietic stem cell, or even representative of majority opinion.

Stem cell morphology is discussed at some length, although the desirability of forcing an essentially functional cell