

Book reviews

Standard Operating Procedures in Pathology. Ed GE Paget and R Thomson. (Pp xvi + 514; illustrated; £39.) MTP Press. 1979.

No, this book is not a universal guide to laboratory medicine, nor is it concerned with pathology as a scientific discipline. It is the manual of practical procedures employed by one British contract research firm which was compiled to satisfy the 'Good Laboratory Practices' regulations of the US Food and Drug Administration, a curious attempt to legislate for accuracy in toxicity testing. The regulations have made it necessary to describe in full how safety studies are done, and this book lists methods used at Inveresk Research International to check the health of animals, to conduct necropsies on common species, to collect and process tissues for histological examination, for experiments in reproductive toxicology, and to obtain samples for biochemical and haematological tests. It also describes the operations of the Quality Assurance Unit, which is required to confirm the veracity of results (but demonstrably not of proof reading).

The details of procedures are inadequate for the book to be of general use at the bench, and in any case a laboratory would be better served by writing its own manual as a blend of experience and local practice. The overall value of this work appears limited, except perhaps to demonstrate the contortions of science under political pressure.

AD DAYAN

Blood Diseases of Infancy and Childhood. 4th ed. Ed DR Miller, HA Pearson, R Baehner, and C McMillan. (Pp xxv + 888; illustrated; DM 68, US \$34.) YB Medical Publishers. 1978.

As in earlier editions, this is an encyclopaedic tome. There can be few facts related to paediatric, or indeed adult, haematology that are not to be found somewhere. There is a historical introduction by Louis Diamond, Denis Miller, Howard Pearson, Robert Baehner, and Campbell McMillan are joint editors, the latter two covering the chapters on leucocytes and haemostasis respectively.

There are 10 other contributors. Philip Lanzkowsky's chapters on iron deficiency and megaloblastic anaemia are particularly valuable, as are also the three early chapters covering neonatal, developmental, and fetomaternal aspects. The details given in the description of marrow aspiration and trephine in children have a 'ring of truth' that can only come from an experienced practitioner. In later sections of the book, Baehner's chapter on granulocyte dysfunction reads like a monograph on the subject, and in his chapter on leukaemia the availability of CCSG data is a valuable addition. Margaret Hilgartner contributes to the chapter on haemophilia, which rightly emphasises the value of home therapy as well as including a useful set of x-rays defining the five stages of haemophilic arthropathy. Other chapters deal with lymphomas and with immunodeficiency.

Are there any imperfections in this book? Probably only those that are inevitable in a multi-author treatise. There are some duplications in different sections. By testing out the book to see if it will resolve day-to-day clinical problems one finds that with this abundance of facts and erudition the 'wood' may sometimes be obscured by the 'trees'. For instance, there are eight pages of tabulated haemoglobin variants, although usefully classified according to involved chain.

Regarding illustrations, there are a number of familiar figures to be seen here that other authors have similarly felt succinctly gave the facts. This is no criticism. As in other books, the colour photomicrographs suffer from their inevitable small size, and it is the larger black-and-white photomicrographs, for example, those of neuroblastoma cells in marrow, as well as the numerous EM micrographs, that prove more informative.

I can recommend this book to all medical libraries.

MLN WILLOUGHBY

Hodgkin's Disease and the Lymphomas. Vol 3. CR Taylor. (Pp iv + 437; £16.50.) Churchill Livingstone. 1979.

In the introduction to this book Dr Taylor states that it is his 'avowed intention to conduct each year a similar

survey of the new literature pertaining to lymphoid neoplasia in the hope that this will prove of some value and practical use to those who, like myself, have developed an absorbing interest in this area of research'. The text and the bibliography is based on the 12 volumes of the *Index Medicus* for 1977 and restricted essentially to those papers published in the English language. Even with this restriction over 1500 papers are reviewed (Volume 1 of this series based on the 1975 *Index Medicus* contained over 1000 references). It is not surprising, therefore, that Dr Taylor has enlisted the aid of nine of his colleagues in preparing the latest volume. If the present exponential increase in publications continues and Dr Taylor manages to stay on top of his task this will be a two-volume publication in a few years' time!

The chapters in the present volume cover basic lymphocyte physiology, surface marker studies, mitogen responses, immunohistochemistry, electron microscopy, cytochemistry and cytogenetics of normal, reactive, and neoplastic lymphoid populations, as well as the clinical and pathological aspects of Hodgkin's disease, non-Hodgkin's lymphomas, and various other lymphoproliferative disorders. The dilemma faced when preparing a review of this nature is whether to impose one's own views and run the risk of being accused of bias or whether to give equal emphasis to all the papers reviewed and hazard the accusation of superficiality. If anything, the authors have erred in the latter direction, and in some sections one might wish for a more critical evaluation of papers. Several articles that appeared to be important from reading this book were, when looked up, found to be trivial or downright poor. Conversely, many sections in the book reflect the sympathies of the University of Southern California workers in this area, perhaps not too surprisingly since this group have contributed so many papers to the literature on lymphomas over the past five years. Taylor himself is first author of eight papers reviewed in this issue. It is perhaps unfortunate that this group has published the hypothetical maturation sequence of follicular centre cells from the cleaved to the non-cleaved cells so

frequently that many pathologists now accept it as fact. The diagram showing cleaved cells progressing to non-cleaved cells reappears again in this issue. There is little factual evidence to support this sequence, and critical immunohistochemical studies on germinal follicles that show cytoplasmic immunoglobulin in cleaved but not in non-cleaved cells would argue against it.

This book is clearly not intended for diagnostic histopathologists except for those with a special interest in the lymphoreticular system. Clinical and laboratory workers in the field of lymphoreticular disease, who do not have ready access to an *Index Medicus*, will certainly find this book useful. Those who have good library facilities available will need to judge for themselves whether they consider it worthwhile paying £16.50 for having a literature survey covering the lymphoreticular system and neoplasms of that system. The apparent continued popularity of this series indicates that most workers consider this money well spent. For their sakes one hopes that Dr Taylor and his colleagues will continue to find the energy and time to undertake this formidable annual task but that they might be a little more critical of the material reviewed.

DH WRIGHT

Limiting Dilution Analysis of Cells in the Immune System. I Lefkovits and H Waldmann (Pp xiv + 262; illustrated; £15.) Cambridge University Press. 1979.

This is a bold attempt to put across a methodology and an outlook on experimentation in cellular immunology, which breaks away from the traditional approaches of experimental biologists who have analysed immunological mechanisms in 'whole' systems, be they living animals, organ cultures, or cell suspensions. The authors' approach in attempting to understand the organisation of cellular events in the immune response is to adopt a mathematically biochemical viewpoint of cell suspensions in tissue culture, regarding them as interacting molecular systems (ie, cell types) whose chance interactions in a positive or negative manner occur randomly, depending on the density of each cell type, and whose outcome can be predicted by a mathematical formula based on the Poisson distribution. The correctness of

this approach is validated when, on diluting a mixed cell suspension in which the concentration of one cell type is limited into a large number of microcultures, the number of 'positive' microcultures (ie, those in which all the necessary cell types are present to produce an antibody response) is related to the concentration of the limiting cells. A similar approach has been successful over the past 30 years in the *in vitro* analysis of the various reaction stages of the complement sequence, based on the one-hit theory of complement lysis.

After a brief outline of current ideas as to the nature of cellular events in immunology, the authors present two clear chapters on the methodology of the system which is both simple in approach and sophisticated in its analytical precision. The middle four chapters deal with the mathematical and statistical validation of the method and the means of analysing the responses, and I predict that these will prove hard going for most biologists. The last three chapters give examples of the ways in which the method can be used to answer questions on the nature of cellular reactions in the production of antibodies.

This is clearly a book for research immunologists. The method depends on being able to provide an excess of non-limiting cell types and deals almost entirely in mouse cell systems, which can be supplemented with 'pure' B or T or 'indifferent' cell types from syngeneic strains. This approach undoubtedly adds to the understanding of cellular interactions where it is not yet possible to isolate and manipulate antigen specific clones of cells. However, its application to problems of immunopathology is still a long way off, and while this book should be essential for those immunology departments involved in teaching and research, it is likely to have little appeal to immunologists or pathologists in the clinical field.

RA THOMPSON

Clinical Chemistry in Diagnosis and Treatment. Joan F Zilva and PR Pannall. (Pp xix + 492; illustrated; £7 paperback.) Lloyd-Luke (Medical Books) Ltd. 1979.

The third edition of this popular book has several major modifications including a new chapter on gonadal function and marked changes in the descriptions of hy-

drogen ion homeostasis and carbohydrate metabolism. A useful addition is the introduction of sections at the end of most chapters in which clinical indications for investigations are discussed. This complements the titles for further reading. For the sake of completeness a more comprehensive account of the biochemistry of pregnancy is required but, as with all textbooks aimed principally at the undergraduate, it is often difficult to draw a line between too much and too little.

The book is worthy of a place in every chemical pathology laboratory in addition to the knapsack of all undergraduates attempting to absorb the essentials of the subject. Already translated into Italian, Turkish, Spanish, and Serbocroat, the present edition is a worthy successor to its forerunners.

GW PENNINGTON

Functional Histology. A Text and Colour Atlas. PR Wheater, HG Burkitt, VG Daniels. (Pp 278; illustrated; £12 paperback, £18 hardback.) Churchill Livingstone. 1979.

The authors accept that 'histology has bored generations of students' and, having identified the fault as a divorce of structure and function, aim to present histology in relation to the principles of physiology, biochemistry, and molecular biology. They have succeeded in producing a high-quality atlas based almost entirely on human material and with photographs which reproduce the appearances of a good H & E stain section, supplemented where necessary by special stains. Line diagrams, electron micrographs, and a lucid text make this book a valuable teaching aid. This atlas is at least as good as any of the other atlases produced by Churchill Livingstone and it can be confidently recommended for undergraduates and particularly for trainees just beginning histopathology.

G SLAVIN

Flow Cytometry and Sorting. Ed MR Melamed, PF Mullaney, ML Mendelsohn. (Pp xv + 716; illustrated; £39.50.) John Wiley & Sons. 1979.

Since the introduction of the familiar Coulter Counters in most haematology laboratories, pathologists have become aware of the principles and advantages of



Hodgkin's Disease and the Lymphomas

DH Wright

J Clin Pathol 1980 33: 606-607

doi: 10.1136/jcp.33.6.606-c

Updated information and services can be found at:
<http://jcp.bmj.com/content/33/6/606.3.citation>

Email alerting service

These include:

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:
<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:
<http://group.bmj.com/subscribe/>