

## BOOK REVIEWS

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**Assessment of Cell Proliferation in Clinical Practice.** Ed PA Hall, D A Levison, N A Wright. (Pp 210; hard cover DM 148.00) Springer. 1992. ISBN 3-540-19700-1

It has been interesting over the past decade and a half to observe the new trends in tumour histopathology which have been stimulated by novel technology and reagents. One of the current "flavours of the month" is the study of cell proliferation, particularly in malignant neoplasms, in relation to histological grade and, ultimately, to prognosis. The appearance of this volume is, therefore, timely. As one would expect from the editors and contributors, this is in general a publication of very high quality with a good balance between practical and theoretical information. The illustrations are in general clear and would give a useful guide to readers who were new to the field.

In summary, the first chapter gives a wide view of the mechanics and molecular events of the cell cycle. The various regulatory aspects are outlined and we are left wondering where all this will end! It will certainly be reassuring when eukaryotic systems (especially those in humans) are analysed in as much detail as yeasts. It may be that some readers could become rather "lost" in this section of the book simply because of their lack of syntax. None the less those who are enthusiastic should persevere and will find much of interest here. The section on growth factors is generally up-to-date and even the perplexing story of p53 is addressed. There is a surprising lack of account of the bcl-2 gene but otherwise this is a useful summary of the current literature. Another difficult topic is tackled by Ansari and Hall in the next chapter, which deals with cell proliferation and death in various tissues in an architectural and non-architectural sense. The taxing problems of the roles of stem cells and clonogenic cells are underlined.

Some stringent mathematics are given in the following chapter in relation to rate and state studies of cell proliferation, and the essential importance of some of the earlier studies are clearly revealed. This leads on logically to the trials and tribulations of counting mitoses, the method which would appear to be simplest and of the most obvious value in estimating proliferation in any tissue. The authors, however, remind us of the deficiencies of many studies in this field, many of which are known to be far from

stringent in undertaking mitotic scoring.

More "hi-tec" aspects of estimating cell proliferation are dealt with in the next chapter, in their usual clear and succinct way, by Camplejohn and Macartney, who review the value of DNA flow cytometry in this field, and the subsequent section brings us on further to the use of flow cytometry in BUdr labelling. (Sadly, one of the authors of this chapter died before publication.) BUdr can also be used for immunohistochemical localisation of proliferating nuclei and this technique is also outlined here.

In the following chapter the uses and clinical values of immunolabelling for Ki67 are outlined; it is unfortunate that some of the more recent work on sequencing and ultrastructural localisation of this antigen are not given. The authors continue to discuss the importance of PC10 labelling and its ability to demonstrate proliferating cells in paraffin wax sections. They then list the less frequently used antigens and also mention, most importantly, the possibility of studying non-proliferating or quiescent cells by means of immunohistochemistry. Nucleolar organiser regions, which have stimulated widespread interest in many countries in the last five years, are discussed by Professor Underwood and the evidence that they relate to proliferation (in general rather than ploidy) is given. Recent evidence that the numbers of "AgNORs" may be related to differentiation is not mentioned.

Finally, and very usefully, a chapter is included which mentions the importance in assessing clinical response of tumours to treatment of the various techniques described previously. This is, of course, the Holy Grail in relation to studies of proliferation (or for that matter any other stigma of malignancy).

In summary, I should recommend this book unreservedly to anyone embarking on research into cell proliferation or to pathology trainees who wish to update their information in this field. My one caveat is that the book is expensive for its size.

J CROCKER

**Atlas of Tumour Pathology, Vol 1.** (Third Series). **Non-Melanocytic Tumours of the Skin.** GF Murphy, DE Elder. (Pp 278; \$40) Institute of Pathology. 1991. ISSN 0160-6344.

This book concerns itself with the epithelial, adnexal, and dermal tumours of the skin, with all melanocytic lesions dealt with in a companion volume. It is produced by the AFIP and therefore has the benefit of a large pool of material from Armed Forces personnel as well as the products of a worldwide referral service. This necessarily produces a statistical bias in what is seen, but this volume is effectively untainted by this as the statistics regarding incidence are largely drawn from the literature. The coverage is broad but each tumour has a succinct section on clinical features, histological features, differential diagnosis and special studies. The illustrations are excellent; histology is in black and white, but there are several colour plates of gross pathology (what I understand dermatologists refer to as "clinical" pictures). The referencing still seems to favour the American literature with relatively little from European journals which in the days of

CD-ROMs in most libraries is odd. Omissions are few and not of great importance. I would have included sebaceous adenoma and I continue to believe that "inverted follicular keratosis" is a diagnosis sui generis and not just an irritated BCP involving the follicular infundibulum.

There is no competing book that I know of. The closest is probably the two volumes by Hashimoto and Mehregan (one covering epidermis, the other the adnexal tumours so there is no dermal tumour coverage). This AFIP fascicle is cheap, accurate, helpful and deserves a place on the shelves of any pathologist who has ever struggled with a skin tumour; and that means all of us.

D COTTON

**Liver Pathology and Alcohol. Drug and Alcohol Abuse Reviews.** Ed RR Watson. (Pp 576; \$99.50.) The Humana Press Inc 1991. ISBN 0-89603-206-X

Alcohol abuse is ubiquitous in our society and its effects can present to practitioners in any branch of laboratory medicine. This text is a collection of reviews dealing with, as a common theme, the mechanisms of alcohol induced liver disease. These range from the esoteric (genetic and dietary control of alcohol degradation in *Drosophila*) to the eminently practical (alcohol and hepatic iron homeostasis). This is a book to dip into, for whatever your specialty, you will learn something new, it may be useful, and it will certainly be stimulating. The only question the prospective casual purchaser might wish to consider is whether or not it is cost effective. For those whose practice involves the support of clinicians specialising in the management of liver disease this book must be essential reading.

ARW FORREST

**Practical Guide to Surgical Pathology with Cytologic Correlation. A Text and Color Atlas.** (Pp 359; 397 figs; DM 240.) Springer. 1992. ISBN 3-540-97538-1.

The stated aim of this book is to emphasise the interdependence of surgical pathology and cytopathology in tumour diagnosis by correlating the microscopic appearances demonstrated by both. Some non-neoplastic conditions, notably infections, are also included. There is a useful introductory note on general principles and methods, followed by 22 chapters which cover all major organ systems. These vary in content. Some, like skin, liver and kidney, deal mainly with histopathology, others—for example, body fluids, almost entirely with cytology. The text is often sketchy and brief, but some accounts, notably of the lung and mediastinum, the female genital tract and the central nervous system, are quite comprehensive, given the limited space that is available.

The book runs to 350 pages of text with 397 figures, many of which are multiple and most are in colour. Most of these are excellent, but some are affected by irritating