**Book reviews**


**Molecular methods for virus detection** has an all American cast and only an occasional reference from beyond those shores. One of the interesting features is the author list and the numbers of individuals who manage to undertake their research and development of molecular methods within private and profit making laboratories. This is in contrast to molecular methods that has fuelled the biotechnology industry and now provides a powerful diagnostic arm for virologists.

A number of us who have become partly conversant with enzyme and DNA technology look for reliable recipe books for the laboratory. Recent requirements in the United Kingdom for laboratory accreditation have encouraged formal recording of results in the virology laboratory. Indeed, many techniques that have been passed from senior to junior technicians over several generations is formalised as methodology on every bench. This book supplies basic and well described formal methods and those who wish to be more advanced can develop some of these protocols. There is enough insight into the techniques both to stimulate interest in the underlying mechanisms involved and to meet one's own requirements.

The book covers all basic nucleic acid detection techniques in an interesting first chapter. The second chapter addresses the problems of quality assurance: which is a constant worry in a diagnostic laboratory and one that enters a new dimension with the exquisitely sensitive amplification techniques that we have to hand. There are a number of overviews within the chapters which are especially valuable for those of us who move from laboratory to clinic and back again. These demonstrate the value of frequently revising and updating our techniques.

One chapter describing the technique proposed for assessing antiviral susceptibility in a wild virus isolate was of particular interest. The "prophets of doom" tell us that we will see an escalation in animal drug resistance with the increasing use of viruses directed pharmacological. Many of us may see this in the (at least) hundreds of distraught young people who will be afflicted with drug-resistant genital herpes. They may no longer achieve remission and relief from the excellent antivirals drugs currently available. The technique proposed in this chapter marries a home-grown and well established plaque assay with a commercial kit evaluation of viral sensitivity with the use of increasing concentrations of drug. Many of us may see this in the (at least) hundreds of distraught young people who will be afflicted with drug-resistant genital herpes. They may no longer achieve remission and relief from the excellent antivirals drugs currently available. The technique proposed in this chapter marries a home-grown and well established plaque assay with a commercial kit evaluation of viral sensitivity with the use of increasing concentrations of drug.

**Molecular Diagnostics for the Clinical Laboratory.** Coleman W B, Tsongalis G J, eds. (Pp 390; £60.00.) Humana Press. 1996. ISBN 089603373 2.

This multi-author text consists of four sections that: introduce molecular biological principles; describe the basic molecular techniques applicable to laboratory medicine; discuss application of these techniques to clinical problems; and assess the routine laboratory implementation of such technology. One useful aspect of this book is the inclusion of a wide range of techniques together with the principles of molecular biology, in one volume specifically designed for clinical molecular diagnostics. However, it is inconsistent in places, with some chapters representing overviews of technical principles and others including practical protocols. Moreover, the protocols that are included are incomplete, assuming some degree of knowledge of the procedures involved. Although to some extent there is a background for those with little experience in this field. It is readable, comprehensive, and relatively up-to-date with some references from 1996. However, those directly involved in molecular diagnostics are likely to require a supplementary practical manual.


This book is an overview of the molecular events involved in the process of tumour development. As such, it is competing in a market saturated with books which purport to make sense of the morass of information available to those interested or involved in this field. In this regard, the book succeeds, largely as a result of the way in which it is structured. The initial sections, dealing with general principles, gives a distillation of the basic information required to understand the second section, which comprises specific chapters dealing with oncogenes, tumour suppressor genes, and the cell cycle control molecules and mismatch repair genes. However, it is not essential to read and assimilate all of this information to be able to understand the chapters in the third and fourth sections that deal with specific tumour types and possible clinical molecular strategies. Thus, it is possible to take from the
book what is required to answer specific questions about individual tumour types, while having the detailed background information available if required. Perhaps more importantly, this structure is achieved without detriment to the content, as the information presented is clear and up-to-date with many references from 1996. Finally, for both those unfamiliar with the field and those who have fallen behind in their reading, this book provides an excellent place to start.

C S HERRINGTON

**Stress-Inducible Cellular Responses.** Feige U, Morimoto R I, Yahara I, Polla B S, eds. (DM198.00, sFr178.00.) Birkhauser Verlag. 1996. ISBN 376 435205 1.

The cover of this book states: “... intended for every stress laboratory as a source of knowledge and perspectives,” and that sums it up precisely. The book is a comprehensive, in-depth volume covering aspects of cell stress from toxic metal responses to protein folding in the endoplasmic reticulum. The in-depth nature of the chapters and the lack of many diagrams makes this a serious read for those involved in areas of, or closely allied to, the heat shock response. Those who work through the chapters will, however, be rewarded by articles of quality written by many of the experts in this field of research.

The book is divided into five parts covering: functions of stress proteins in unstressed cells (normal folding, translocation, receptors, and protein breakdown); regulation of inducible stress responses (methods of sensing cell stress, effect of heat shock on enzyme activities, and SOS response to DNA damage); cellular responses to specific stresses (UV activation of stress proteins, signalling events that control the stress response, and toxic metal responsive transcription); paradigms for complex stress responses (including viral infection, inflammation, and aging); and applications of stress responses in toxicology and pharmacology. The final chapter includes articles on stress proteins as biomarkers for environmental toxicology and the use of heat shock proteins as immunological carriers and vaccines.

The comprehensive scope of the articles in this volume will result in queues for this book at most university libraries as soon as dissertations are requested on any topic relating to heat shock.

R J MAYER


I welcomed the first edition of this text, immediately purchased the second (1986, 315 pages) but am disappointed by the limited coverage of the third (492 pages). The first and second editions were entirely concerned with mouse monoclonal antibodies, however, the decade between the second and third editions has seen a major broadening of techniques for producing monoclonal antibodies—for example, human–mouse hybridomas and phage display libraries, that are not given due weight in this volume. The author acknowledges this to some extent in his introduction stating “the advantages of a single author book... may soon be outweighed by the logistical impossibility of one individual covering all of the necessary areas”. Another strength of earlier editions is diluted by the authors admission that “my ability to speak from hands-on experience is less than it used to be”.

The expansion of the volume is due to the inclusion of six chapters of basic immunology (115 pages), and the addition of a chapter on immunohistology (20 pages). Personally, I doubt whether this volume would be purchased by any institution or individual who did not already have at least one or more basic texts available and known to them. In short, therefore, the argument for up-dating is slim, but affordable at £29.50.

R JEFFERIS

**Path-cyclopedia** (CD-ROM; Mac/Windows versions). (S295.00, residents; $495.00, individuals; $695.00, institutions.) Lippincott-Raven. 1996.

Having invested a considerable sum of money on the “hard copy” version of this book and found it most useful, I was intrigued to investigate the relative utility of the CD-ROM equivalent. It certainly weighs much less! Both the Mac and PC versions require 8 Mb of RAM and 11 Mb (PC) or 8 Mb (MAC) of free hard disk space.

The reader may wonder why I am reviewing a disk that, in its conventional form, is entitled *Diagnostic surgical pathology*. The encouraging fact is that, as both a diagnostic and research pathologist, I find the book and disk most stimulating in that molecular considerations lie in the text almost as a matter of course, reminiscent of the inclusion of immunocytochemical information in groundbreaking diagnostic texts 15 years ago.

Certainly, the quality of production of the CD-ROM reflects the beauty of its mother book and the similar price seems reasonable in relation to the present market. Why should I buy the disk rather than the book? There are two main reasons. First, the ease of cross-referencing is the forte of CD-ROMs, and in a massive body of information such as this, that is of great importance. Second, the disk version comes with a Medline search facility and, as a further bonus, the contents of *Diagnostic Molecular Pathology, Applied Immunohistochemistry*, and the *American Journal of Dermatopathology*. What more could a histopathologist want? Furthermore, updates are promised.

In conclusion, I cannot recommend this CD-ROM strongly enough. It may not so readily fall into my hands as the paper version but will inevitably, because of its medium, lead me into many side-tracked diversions as I work my way through the cross-referencing. I only hope that I learn as I go along! Perhaps I now need a powerful lap-top.

J CROCKER