

mechanisms of action in some chapters), theoretical aspects of the techniques, and suggested antibiotics for testing against different micro-organisms are given. Other aspects of antimicrobial susceptibility testing, such as the measurement of drugs in different body fluids, postantibiotic effect, and effects of combining antibiotics, are presented in chapters 7, 8, and 9, respectively. Again, although these tests might not be performed in a routine laboratory, they are extremely useful in a research laboratory where staff are engaged in the study of antimicrobial agents.

Electron micrographs of bacteria before and after exposure to antibiotics can be found in chapter 10. The genetic and biochemical mechanisms of bacterial resistance to drugs (other than to the  $\beta$ -lactams), including protocols that allow investigation of the mechanisms, are detailed in chapter 11. Chapter 12 gives an extensive review of  $\beta$ -lactam antibiotics and contains protocols allowing the investigation of the mechanism of  $\beta$ -lactam resistance, particularly the characterisation of  $\beta$ -lactamases. Chapter 13 gives a summary of the mechanisms of action of other antimicrobial agents. Chapter 14 evaluates the activity of different antimicrobial agents in experimental animal models to allow the study of infection. Chapter 15 presents methods of preparation of antibiotic discs and other devices that contain antibiotics. This information would be extremely useful for small laboratories with a tight budget.

As most antibiotics are concentrated and excreted in the urine, a chapter (chapter 16) has been devoted to the various aspects of the activity of antibiotics in the urine. Chapter 17 attempts to answer the question of the correlation of in vitro susceptibility test results and the success of antimicrobial therapy, and is a handy source of reference for microbiologists who need to explain the usefulness of antibiotic susceptibility testing to their medical colleagues. Chapter 18 presents data on the distribution of antimicrobial agents in different body compartments, and the book ends with a chapter on antibiotic susceptibility data of different bacterial species. This last chapter provides information on the activity of an extensive list of antibiotics.

The book is extremely useful and practical for microbiologists who are involved in the daily routine of antimicrobial susceptibility testing. It is very informative and has tables on the pharmacokinetics, molecular formulae, molecular weights, and names and addresses of drug manufacturers (chapter 15). It is also very easy to read.

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## Introduction to immunocytochemistry, second edition

By: Polak JM, Van Noorden S

BIOS Scientific Publishers/Springer-Verlag Singapore Pte Ltd., #04-01 Cencon I, 1 Tannery Road, Singapore 347719  
US\$24.50, pp 141, ISBN 981 3083 35 2

The authors of *Introduction to Immunocytochemistry* are well known in the field of immunolabelling and have extensive experience in the area of endocrine pathology. The first edition of this book was published in 1984 (reprinted in 1987) as an expansion of notes that were provided during practical courses conducted at the Hammersmith Hospital and Royal Postgraduate Medical School in London. Because of the rapid progress in immunohistochemistry, this 1997 edition was extensively rewritten to incorporate all the important advancements and changes in the past 10 years, such as heat-induced antigen retrieval and tyramine signal amplification.

The book is very readable and comprises 11 chapters that cover various aspects of antibody production, tissue fixation and immunolabelling, enhancement

methods, multiple immunostaining, post-embedding immunolabelling for transmission electron microscopy, in vitro methods for testing antigen-antibody reactions, and applications of immunocytochemistry and microscopy. While some aspects are covered only very briefly, this book is directed at the newcomer and really represents an expansion of what is provided in the opening chapters of several standard textbooks in applied immunohistology. In this regard, the term 'immunocytochemistry' used in this book is somewhat dated, as other terms such as 'immunohistochemistry' and 'immunohistology' serve better to emphasise a major property of the technique as an extension of morphological examination that allows correlation of cell marker and function with histology—cytology is only a smaller component of its applications.

A practical aspect of this book is the provision of detailed procedures and recipes in the Appendix, which allows the novice to perform the techniques from scratch. Unfortunately, this carries an inherent drawback that needs to be highlighted. The danger with set protocols is that they tend to be followed rigidly. This should not be so in immunohistochemistry, especially when the demonstration of antigens is largely dependent on tissue fixation. Fixatives and the duration of fixation vary widely between laboratories, and adaptation of staining protocols to suit local conditions is an important aspect of immunohistochemistry. The optimisation of procedures (particularly antigen retrieval and incubation times) is therefore an essential prerequisite to achieving successful immunostaining. Tissue preparation, albeit a less important area, has not been mentioned in this book. It is also interesting that the authors chose to illustrate immunohistochemistry with several fluorescent preparations of antibody PGP9.5, which works equally well in fixed samples and paraffin-embedded tissue sections—perhaps a reflection of the authors' preference.

One of the major advantages of modern immunohistochemical techniques is their reliability and efficacy in paraffin-embedded tissue.

Apart from these minor deficiencies, this book achieves its purpose of providing the newcomer with practical information and enough theoretical knowledge to understand current immunohistochemical techniques. Pertinent references are provided for further information at the end of each chapter. The text is clearly and adequately illustrated, and the layout is easy to follow. I would recommend it as a handbook to students starting out in the use of this powerful diagnostic and research tool.

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## Neurology in practice, second edition

By: Yu YL, Fong JKY, Ho SL

Hong Kong University Press, 14/F Hing Wai Industrial Centre, 7 Tin Wan Praya Road, Aberdeen, Hong Kong  
HK\$98, pp 216, ISBN 962 209 445 7

*Neurology in Practice* by Dr YL Yu et al is a nicely written manuscript that is in a very readable form, with notes, tables, and short paragraphs. The authors have achieved with success the difficult task of condensing medical neurology into a 198-page booklet with both precision and comprehensiveness. In my opinion as a neurosurgeon, I do not quite agree with the authors that "the role of neurosurgery in ICH [intracerebral haemorrhage] is limited", as stated in the chapter on cerebrovascular diseases, because early surgical intervention may shorten the length of hospital stay and reduce morbidity.

It will be beneficial for physicians to consult neurosurgical colleagues for mass lesions in the brain (eg haematoma or tumour) to enable a more comprehensive management plan to be made for the patient. Head injury and its sequelae are very common complaints in everyday general practice and deserve

more attention from the authors. In the next edition, the section about brain tumour and head injury should be separated into two chapters, as they are not related. In addition, more detailed information and indications for admitting patients with head trauma for observation should be included.

In my opinion, *Neurology in Practice* serves as a pocket handbook in neurology and provides a quick reference source to medical students and interns in their bedside practice.

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