BOOKS RECEIVED

The oxygen metabolism of microorganisms

This little book deals concisely with several aspects of oxygen metabolism in microorganisms including electron transport, oxidases, oxygenases and physiological responses of growing cells to oxygen. The author also traces advances in techniques available for measuring the response of cells to dissolved oxygen emphasising that accurate measurement of dissolved oxygen has been a limiting factor in this field. Viewed as a whole the review usefully supplements information on oxidative metabolism to be found in standard texts on microbial physiology. Graduate researchers and students taking advanced courses in microbial physiology will gain from Dr Harrison’s treatment of the subject but the book is unlikely to be of general interest to medical microbiologists. Although clearly and concisely written the presentation is spoiled by certain tables that are printed in such a small typeface that they are extremely difficult to read.

J. P. Arbuthnott

Dengue viruses

As the title suggests, this monograph concentrates on the viruses that cause dengue fever, and carries a detailed discussion of the biological, biophysical and biochemical properties of these agents. However, the historical aspects of the disease and the clinical manifestations of classical dengue fever, a troublesome but non-fatal condition, are also well covered, as are those of haemorrhagic dengue, now recognised as an important cause of death in children in urban areas of South East Asia. Four different serotypes of dengue viruses are recognised, any one of which can cause either form of the disease. Although still controversial, the favoured model for the pathogenesis of haemorrhagic dengue is the “second infection hypothesis”, in which, under conditions still imperfectly understood, a sensitised individual reacts abnormally to infection with a second serotype of the virus.

This is a scholarly work which draws attention to the fact that in spite of considerable advances in our knowledge of the molecular biology of animal viruses we are still far from understanding precisely how these agents produce their pathological effects in man.

J. S. Porterfield

Virus hepatitis and its control

The enormous and prolific literature on viral hepatitis increases logarithmically each year and the wealth of new information is often bewildering. It is, therefore, an ambitious and unenviable task to attempt to write a book on this rapidly moving subject and Dr Yvonne Cossart is to be congratulated on her efforts.

Unfortunately, it has appeared too early to include the many advances that have been made in our knowledge of hepatitis A and of a new form of hepatitis (neither A nor B) since 1975. Yet, even a brief guide on methods for the control of the various types of viral hepatitis is praiseworthy, although to dismiss in three pages virtually the entire work on experimental hepatitis B vaccines, which are now under trial in man, lacks balance in a book devoted to the control of these infections. Passive immunisation is also dealt with in only a few words; lengthy catalogues of relevant publications are given, but they are arranged uncritically in a series of tables.

The problem of drug addiction and hepatitis is glossed over; the new type of viral hepatitis that is now the most common form of post-transfusion hepatitis in some areas, the significant progress that has recently been made in the suggested role of hepatitis B virus in primary liver cancer, and the advances in the physico-chemical characterisation of hepatitis
virus types A and B and in the immunology of these infections all receive little mention. This really means that the time is not yet ripe for a definitive monograph on this subject.

Finally, the paucity of illustrations, even as a measure of economy, is surprising as is the absence of an electronmicrograph of the complete hepatitis B virus, apart from a single Dane particle tucked away in the margin of plate VI. The printing is by phototype set, and the use of poor quality paper containing a significant proportion of re-cycled fibre, claimed as the publisher's contribution to conservation, and the occasional lapses in binding suggest that the age of the disposable "hardback" book has regrettably arrived.

A. J. ZUCKERMAN

Urinary cytology

This monograph is a well bound and clearly printed text of 158 pages intended to provide the cytopathologist and cytotechnologist with a working knowledge of practical urinary cytology. After a brief historical review, the author devotes eight pages to methods of collection of samples from the urinary tract and to the preparation and staining of the cellular content. The art of microscopical diagnosis can only be achieved when there is understanding of the effects of disease upon normal microscopical anatomy. Rightly, the author describes the histological changes, correlating them with the cytological ones, and stressing in particular those due to viruses, drugs and neoplasia. The concluding chapter is devoted to the cytopathology of the prostate.

Diagnostic cytology has become an essential and valuable tool for following both developing and treated cancers of the bladder, and 6-monthly urinary examinations are mandatory for persons exposed to defined industrial carcinogens. Carcinoma of the prostate is increasing in incidence and is the fourth commonest cancer in the UK and the second in the USA. Thus, there is a need for acquiring skills in the difficult field of urinary cytology. Does the author succeed in his intentions? To learn cytology from pictures, particularly if they are black and white photographs, is often difficult. Some years ago, I heard Hertig quote his old chief, Wolbach, thus: "The most important question in cytology is to ask 'Where does the cell come from?'" The novice can master the art if the principles are grasped and a discipline of good preparation, careful microscopy and clinical follow-up is established. I think this first edition will serve its purpose well.

MAX LEVENE

Recent advances in clinical immunology

The editor of a series of books entitled "Recent Advances in Clinical Immunology" has an unenviable task because to promote "recent advances" in any subject presupposes that the subject in question has been satisfactorily defined. Clinical immunology, as everyone recognises, lies uneasily between three territories of medical concern, on each of which it partially encroaches. Firstly, there are disorders, such as primary immunodeficiency, that present clinical problems of diagnosis and management and yet are predominantly immunological in nature. Such topics emphasise that clinical immunology is a part of clinical medicine. Secondly, diagnostic techniques, such as tests of the complement system, that analyse the immunological features of disease in the laboratory, have been introduced; clinical immunology is thus seen to add to the diagnostic skills of the clinical pathologist. Finally, immunological processes in varying degree are involved in the pathogenesis of a wide range of diseases. In this context, clinical immunology is of great academic interest, but of less practical concern to clinicians; it is still possible to be a competent rheumatologist but to remain unmoved by the plight of New Zealand mice. Given the diffuse nature of the subject, this volume betrays the impossibility of providing a balanced diet that will satisfy all clinical immunologists.