reversible, contrasting with a severe stress that causes rapid or irreversible loss of viability.

As is stated in the Introduction, this is not a comprehensive monograph on the subject over the whole field of microbiology, but is a review of work published up to 1973 on certain phenomena associated mainly with mesophilic bacteria (indeed, its title should have referred to bacterial rather than microbial response). The stresses considered are starvation, mild heat, cold shock, osmotic shock and aerosolisation. In addition to the chapters appearing under these headings, there is a final "progress section" that reviews papers on the subject published between 1973 and 1976. The topics are discussed concisely and readably, but it is clear that the approach has been rather too narrowly selective. Of approximately 200 references in the bibliography (almost exclusively to papers in English-language publications) there are only half-a-dozen that show a date before 1950, or that refer to work published in journals having a medical interest; for example, no references to work in the Journal of Medical Microbiology or its predecessor are to be found. This may of course be because the topics received less attention than they deserved from medical bacteriologists. Nevertheless, this is an interesting little monograph, and the bibliography provides a useful starting-point for a more extensive search of the literature on any of the topics reviewed.

G. R. F. HILSON

Concanavalin A as a tool

Concanavalin A sprang into the limelight 7 years ago when it was recognised that certain plant lectins agglutinated tumour cells. Unfortunately, hopes that this might lead to the identification of a site at the cell surface involved in the control of growth and movement have not been fulfilled, but, on the credit side, a great variety of new approaches to the study of the cell surface has been developed.

This book sets out to summarise this work. It avoids too much speculation, and is essentially a laboratory handbook. Apart from a short but reasonably complete summary of the known facts about the chemistry of concanavalin A and its reaction with cells, it is a compendium of methods described by leading workers in the field. They deal with the localisation of concanavalin A by microscopy and electronmicroscopy, assay methods, agglutination, molecular and cellular separations by concanavalin A, and biological uses, for example in the mitogenesis of lymphocytes. The contributions are concise, authoritative, and (in those cases where I am able to judge) complete. This book is to be recommended to anyone interested in the cell surface.

C. H. O'NEILL

Recent advances in clinical virology

This is the first issue of the well known Recent Advances series that deals exclusively with virology, a subject that was previously included in the general microbiology text. For better or for worse this reflects the increasing divergence of the pathways of virological and bacteriological advance.

A wide range of virological topics of either clinical or academic interest is covered, respiratory viral disease being the only major subject of current interest that is omitted. Exactly half of the contributions are concerned with neurological disease, a bias that is understandable as this is the field where there is growing anticipation of important advances in the near future. This part of the book begins with an account of the diagnosis and treatment of herpes encephalitis, a disease that is still unfortunately proving refractory to antiviral chemotherapy. There are also accounts of the respective roles of measles virus and the papovaviruses in subacute sclerosing panencephalitis and progressive multifocal leukoencephalopathy: the first account concentrates on pathogenesis, and the second contains
information on general aspects of human papovavirus infection. Two of the articles are concerned with slow virus infection; the first evaluates the evidence that Creutzfeld-Jacob disease is a transmissible infection resembling scrapie, and the second deals with the intriguing nature of the mysterious agent. The last neurological topic is an account of the new rabies prophylactics, a subject that may be of considerable clinical importance in the near future.

Next follows a series of contributions on widely dissociated clinical topics, all of current interest. These include accounts of Lassa fever, of the newly discovered aetiological agents of viral gastroenteritis, and of the role of coxsackie viruses in myocarditis.

The book concludes with evaluations of current progress in the prophylaxis of measles, rubella and cytomegalovirus (CMV) infection. The contribution on CMV prevention is particularly timely as it is becoming increasingly apparent that CMV is more important than rubella virus as a cause of abnormality associated with intrauterine infection. Evidence is presented to support this viewpoint and this is followed by reasoned arguments for and against the introduction of vaccination to prevent such abnormality.

The topics and particularly the contributors have been well chosen by the editor. The volume as a whole is an excellent exposition of current and anticipated achievement of virological science. It will be a valuable addition to the shelves of clinical virologists and bacteriologists, but is worthy of wider readership to include physicians, paediatricians and community physicians.

R. B. Heath

An atlas of medical microbiology: common human pathogens


Until recently the only book devoted to illustrations of medical microbiology available in Britain was the well-established work by R. R. Gillies and the late T. C. Dodds. Dr Stratford's new Atlas is, however, the third and most comprehensive example of this genre now in print. Although the systematic bacteriological and mycological sections are less detailed than those in the recent Atlas by R. J. Olds, reviewed in 1975 (J. med. Microbiol., 8, 462), Dr Stratford's book deals in addition with viruses, protozoa and helminths. It is also considerably less expensive as a result of financial support from pharmaceutical and other companies. Presumably the price could have been reduced even further if the upper half pages had not been left completely blank in more than half of the book. The text provides a generally helpful commentary on specimen collection and processing, and on the biological features of the main pathogens. Some of the author's statements are, however, misleading. Thus, in the section on antibiotic sensitivity tests, cephaloridine and flucloxacillin are recommended as being representative drugs for inclusion in disks, whereas in fact each is the most vulnerable in its group to β-lactamases, and additional technical problems are encountered with flucloxacillin. Moreover, the instruction that the inoculum should not exceed 10³ organisms per ml in tube tests involving carbenicillin is illogical as much higher bacterial populations occur in many lesions. The uninitiated student will also obtain false impressions from such statements as "Bordetella grows anaerobically" and "occasionally the fungus (Candida albicans) may cause disease of the skin, mouth, vagina, bowel . . .". He will need to turn to other books to learn that Bordetella spp. are strict aerobes or that C. albicans is the principal cause of vaginitis. The text can be criticised on many other points of detail including the use throughout of the obsolete "µ" symbol, the description of the psittacosis and lymphogranuloma venereum agents as viruses, and lapses in nomenclature and classification.

The illustrations, in contrast, are almost invariably excellent. The only disappointments here are the absence of illustrations in the sections on the various parvobacteria, bacteroides and "higher" bacteria, and the overcrowded culture plate used to depict the technique of "plating out". Despite these reservations this book undoubtedly represents excellent value for money. It can be recommended for use by medical students in parallel with a general textbook.

SYDNEY SELWYN