such as antimicrobial prophylaxis and support of the septic patient, or according to the different branches of surgery. The problem of infection cannot be ignored by any surgeon and it is vital that they keep up to date with all the new evidence relating to infection in their own speciality. Unfortunately, I am not sure that this book is the most useful for this purpose. Whilst especially some of the earlier articles should perhaps be compulsory reading not only for all surgeons but for all doctors and medical students, the articles dealing with special areas of surgery are of a variable standard and in some cases give a very onesided view. On the other hand, this book should be very useful to the microbiologist for whom it will provide a detailed record of an important symposium, including the most recent work of some of the leading specialists in the field.

J. H. DORMANDY

Anaerobes and anaerobic infections


This record of the three symposia on anaerobic bacteria held at the XIIth International Congress of Microbiology in Munich, in 1978, comprises the full texts of the papers presented but does not include any transcript of the discussions. It is presented in the format of a single-issue journal and is published more than two years after the congress. The contributors include many of the leading medical and scientific microbiologists in the field of anaerobic bacteriology. However, the language and style of some contributions reflect the problems of presenting "proceedings" in English when this is not the first language of either the contributors or the editors.

The three sections of the book correspond with the three symposia. The four papers in the first section consider the fundamental properties of anaerobes. Professor J. G. Morris presents a lucid appraisal of oxygen toxicity and tolerance, and other contributors consider the complex areas of electron-transport systems and the role of metal ions in metabolic pathways. The second section on pathogenic anaerobes attempts a broad coverage of human disease caused by anaerobes coupled with some consideration of sensitivity to antimicrobial agents, including lysozyme. Some of the papers on the general topics of anaerobic infections (S. M. Finegold) and classification of anaerobes (E. M. Barnes) are too brief and superficial for the size of the subjects; they were probably useful in the context of the symposium but do not constitute significant contributions to the published literature on anaerobic infections. However, W. J. Loesche gives a good assessment of the pathogenesis of periodontal disease and there are summaries of work on endotoxin and β-lactamases. The last section on syntrophy and bacterial interactions emphasises the importance of mutually beneficial combinations of bacteria. This concept has important implications for medical microbiology but the four papers are not particularly relevant to medicine. They concentrate principally upon thermodynamic energy transfers and carbon balances in methanogenic bacteria although M. J. McHerney and M. P. Bryant demonstrate the importance of anaerobic combinations in the animal rumen and in sludge digesters.

B. I. DIERDEN

Microorganisms and nitrogen sources. Transport and utilisation of amino acids, peptides, proteins and related substrates


The subtitle of this book gives a fair indication of its contents, the main emphasis being on the transport and utilisation of nitrogen sources by micro-organisms of all kinds including prokaryotic bacteria, yeasts, fungi and algae. Higher plants and even mammals are included in a few sections. There are 26 self-contained chapters, five of which are written by the editor alone or with collaborators, the remainder being written by some 30 scientists working in a variety of disciplines. It is, therefore, not surprising that the style and length (14–52 pages) of the chapters is varied. They range from turgid review-style articles peppered with references, through accurate accounts of current research to imaginative and forward-looking contributions.