BOOKS RECEIVED

Drug resistance in antimicrobial therapy

This is an interesting and very well documented book. Although packed with facts, it is easy to read and refer to. The intending reader ought to know that it is not primarily about mechanisms of antibiotic resistance, although an early chapter deals with this and includes many key references that can be pursued. Nor is it solely an account of the current significance of drug resistance in antimicrobial chemotherapy. It is rather a well ordered review touching upon all aspects of the subject but written with a strong historical and epidemiological slant. After an introductory chapter, and chapters on mechanisms and modes of origin of resistance and on the clinical interpretation of sensitivity and resistance, each main group of bacteria is treated separately, with special emphasis on staphylococci and gram-negative bacilli. Although mainly about antibacterial drugs, short but useful sections on resistance to antifungal and to antimalarial drugs are included. The book ends with a thoughtful chapter on control of the emergence of antibiotic resistance, which combines practical policy making with a long-term ecological view.

Writing a conspectus like this does raise difficulties of emphasis and detail, most evident in the chapter on the clinical interpretation of sensitivity tests. This covers ground that is (or should be) fairly familiar to the expected readership. But to omit this material would do less than justice to an important facet of the subject, while to enlarge on it would be appropriate only in a practical manual. In general, the balance has been admirably held, and this monograph deserves wide readership. The extensive reference lists for each chapter mention publications of both recent and historic importance. I was fascinated to learn that Fleming had suggested that penicillinase-producing staphylococci might interfere with the action of penicillin on Streptococcus pyogenes in the same lesion.

H. P. Lambert

The biological role of bacterial lipids

This is a concise but comprehensive account of an important but rather neglected subject. After showing that bacteria comprise three groups, having low, medium or high lipid content, the author classifies the types of lipids found into nine chemical groups. He deals with the role of various types of lipid as (1) sources of energy, (2) biologically active materials essential for metabolic processes and (3) elements in the structural composition of the bacterial cell. Then he considers the effect of the stage of the growth cycle, and of cultural conditions, such as temperature, pH and composition of the medium, on the composition of bacterial lipids.

Although lipids are the main components of the cytoplasmic membrane of gram-positive bacteria and of the surface layer of gram-negative bacteria, the author regrets that very little is yet known about their function and biological activity, particularly as they have been shown to play a definite role in resistance to antibacterial agents. He discusses the correlations between resistance of bacteria and their lipid composition, taking into account not only qualitative and quantitative changes in lipid content but also the presence of lipids at specific sites. Lastly, he deals with the roles of bacterial lipids in pathogenicity and virulence, discussing the toxic effect of some lipids, and also the action of bacterial lipases and phospholipases, and how they affect the lipid composition of the tissues during bacterial infections.

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The author quotes a very large number of references from journals in many languages, thus giving the reader an opportunity of assessing the work in this complex field of study. Unfortunately the book has neither an index nor an alphabetical list of the authors quoted. A short summary at the end of each chapter would have been useful.

K. A. BETTELHEIM

Medical microbiology in the tropics

Dr Nnochiri has attempted the formidable task of providing, over the whole area of this vast subject, information on every microbiological topic sufficient for the needs of medical students, health workers and nurses working in a tropical environment. The manner of presentation of this volume, and parts of its content, invite criticism. The line diagrams are as dispiriting as they are limited, and the content of some sections, for example, those on lymphogranuloma venereum and brucellosis, and the laboured introductory chapter, leave much to be desired. However, other sections are admirably concise and apt for the topics covered: laboratory procedures, the microbiology of water supplies, milk and food, and certain of the sections dealing with the clinical relevance of bacteriology to disease. It must be admitted, however, that the systematic approach used here is not always suitable.

On the other hand, this volume has undoubted merit. The task of complete coverage of the subject is tackled with obvious enthusiasm, and a selection of material is made that is generally appropriate to the needs of those for whom the volume is written. Postgraduates may also find this book useful in some circumstances, though they may be disturbed by the lack of guidance given to those who will have to choose between the many alternative methods described.

This book will run to more editions. Perhaps the need for offering guidance to the judgment of the reader will be given priority in future revisions.

J. GRANT

Infectious multiple drug resistance

A book of this type is long overdue, and the author has extensive experience of the laboratory facets of the subject. He has also an appreciation of the ecological significance of bacterial plasmid activity, and is sufficiently close to that aspect to justify his treatment of it. The result is a book that is valuable to microbial geneticists at all levels, to molecular biologists, to medical and veterinary microbiologists and to clinicians. There are also chapters that could be read with advantage by administrators in public health and veterinary medicine.

The title is a misnomer. The book deals not only with infectious ("transferable" is better) drug resistance, but also covers bacterial plasmid genetics and activity in general, and in considerable detail. However, perhaps this title will be better for sales than a more academic one, and the book deserves to be widely read. The style is rather colloquial, but this makes the content easy to absorb.

There is one rather serious drawback. The references are not identified precisely in the text but are given under subject lists at the end of each chapter. In a book of this calibre, all references should be accurately indicated in the text, so that they can be related to the full references at the end of the chapter, or of the book.

There are, of course, other faults. The terms $f^+$ and $f^-$ are used almost as though they were synonymous with F-like and I-like. We know enough about these properties and their presence in various plasmid compatibility-groups to make this bad practice. Compatibility-group O is given a priority it does not deserve over group B, with which it is identical and which was described over a year earlier than O. Not enough space is given to the Mexican chloramphenicol-resistant strain of the typhoid bacillus, to the enormous