

## Book Reviews

*Antimicrobial Drug Resistance*. Edited by L. E. BRYAN. London: Academic Press. 1984. Pp. 576. £55.50. ISBN 0 12 138120 X.

This useful book consists of a collection of articles providing a detailed overview of the study of antimicrobial drug resistance. Previous discussions of resistance mechanisms have usually been confined to a single chapter in a more general book and the time certainly seems to be appropriate to devote an entire book to a state-of-the-art description of this field. Although much of the book is concerned with bacterial resistance to antibiotics, other chapters deal with resistance to antiviral, antifungal and antimalarial compounds.

Describing the contents of the book in more detail, the first three chapters deal with  $\beta$ -lactamases and resistance to  $\beta$ -lactam antibiotics, the design of new  $\beta$ -lactam compounds to circumvent such resistance, and alternative forms of resistance resulting from alterations in permeability and target sites. These chapters are commendably up-to-date in a fast-moving field; however I felt that the second chapter was somewhat peripheral to the book's main theme, dealing as it does with the chemistry and design of new agents rather than with actual mechanisms of resistance. The next chapter deals with intrinsic resistance, followed by seven chapters reviewing resistance mechanisms to most other major antibacterial agents (including antifolates, tetracyclines, aminoglycosides, macrolides, chloramphenicol and nitrofurans) and an interesting chapter by Anne Summers dealing with bacterial metal ion resistance. Most of these chapters provide some discussion of the genetic basis of resistance to individual agents where this is known. Chapters on resistance to antiviral, antifungal and antimalarial agents are then followed by a final group of four chapters dealing with plasmids in 'most of the clinically important bacteria'. In the first of these, Naomi Datta provides her usual erudite discussion of plasmids in enteric bacteria. This is followed by descriptions of the plasmids of *Pseudomonas aeruginosa* (George Jacoby), *Haemophilus* and *Neisseria* (W. L. Albritton), and *Streptococcus*, *Staphylococcus* and *Bacteroides* (J. Brunton). There are, of course, many other clinically important bacteria and it is perhaps a pity that space could not be found for a final general chapter summarizing work in other organisms. Each chapter includes a reasonably comprehensive list of references giving access to the original scientific literature.

In summary, this is a book which should appeal to anyone involved with research on antimicrobial drug resistance. Its particular appeal is based not so much on the new information that is presented (indeed much will already be familiar to workers in the field), but on the fact that information from a wide variety of sources has been gathered together into one convenient volume with a helpful index. Unfortunately a depressingly familiar caveat on price has to be added. This is a book with a wealth of useful information that deserves to be widely read and undoubtedly many researchers would like to possess it. Priced at £55.50 it may well be beyond the means of many potential purchasers.

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