want a succinct source of comparative information on the oral cephalosporins as a group, then this may be the book for you. The eight chapters, mainly by authors in continental Europe, are admirably up to date and cover everything from chemical properties of the agents to adverse reactions, stopping off along the way to consider therapeutic use in upper and lower respiratory tract and urinary tract infections. Coverage is quite comprehensive, although there is an understandable tendency to dwell on the newer compounds. Some of the earlier oral cephalosporins, including cefadroxil, cefatrizine and cefroxadine, which are in use in some countries, receive little or no mention.

According to the publisher's statement 'this book is a valuable source of authoritative information' — and so it is; but at a sterling equivalent price of around £120 for a text of well under 200 pages (with nearly 20% devoted to references), it is scarcely a bargain.

D. GREENWOOD

50 years of Antimicrobials: Past Perspectives and Future Trends

P. HUNTER, G. DARBY and N. RUSSELL. 1995. ISBN 0-521-48108-2. Cambridge University Press. Pp. 388. £60.00, US\$ 115.00 (hardback).

This book is the latest volume in the Society for General Microbiology's Symposium series and the timing of its publication is apt as it coincides with the 50th anniversary of the Society. As suggested by the title, the book covers a large subject area, dealing with antimicrobial agents active against bacteria, viruses, fungi and protozoa. The editors have achieved a good mix of chapters that are informative, include up-to-date references and most of which are easy to read. The organisation of chapters is sometimes a little surprising, with some that address related topics not grouped together. Inevitably, this results in some minor repetition between contributions from different authors.

The book opens with the text of a lecture given by Sir Alexander Fleming in 1946 and this serves as a useful reminder of the state-of-the-art at the time. Other chapters also have a firm historical perspective covering the discovery or synthesis of new classes of antimicrobial agents and subsequent synthetic modifications made to improve their activities. Also included are chapters that tackle the questions 'Why do we still get epidemics?' and 'Why do micro-organisms produce antimicrobials?'. The book presents a number of different perspectives on established topics. For example, the chapter 'Who needs new antimicrobials?' concentrates on the need to develop agents for protozoal diseases in the developing world rather than the more usual need to tackle antibiotic-resistant bacteria in hospitals. However, as pointed out by several of the contributors, the development of new antimicrobial agents is very often profit-driven and those diseases affecting individuals in countries with the ability to pay are attractive targets.

The only real criticism is the inclusion of a chapter on the use of baculoviruses as insecticides for agricultural use. This seemed to be misplaced and out of context with the rest of the book, particularly as any future potential for developing these agents against the arthropod vectors of infectious disease is not discussed.

One point of irritation was the correct use of the new generic names *Stenotrophomonas* and *Burkholderia* for

bacteria formerly known as *Xanthomonas maltophilia* and *Pseudomonas cepacia*, respectively, in a chapter which stated, incorrectly, that the mechanism of glycopeptide resistance in enterococci is 'not known'. Similarly, in another chapter, the phrase '...*Enterococcus hirae* (formerly *Streptococcus faecalis*)...' might cause confusion. The latter species is now *Enterococcus faecalis* and is distinct from *E. hirae*, which did not exist before the inception of the genus *Enterococcus*.

Overall, this volume should definitely find a place in libraries and will be of interest to anyone working in the general field of antimicrobial agents.

N. WOODFORD

A Practical Guide to Clinical Bacteriology

J.R. PATTISON. 1995. ISBN 0-471-952-885. John Wiley and Sons, Chichester. Pp. 204. £12.95 (paperback).

This book was an enjoyable read as well as a refresher in the basic principles of clinical bacteriology and its application to modern medicine. The level of detail contained in the book suggests that it is aimed primarily at medical and dental undergraduates, junior medical staff, laboratory technicians and students of human biology rather than clinical microbiology trainees studying for MRCPPath. The layout is logical and well structured, beginning with general principles of bacteriology, classification and antimicrobial therapy. Each of the medically important genera is described in turn, in a uniform style of presentation that allows for easy reading. Although, on first impressions, some of the chapters on the more medically prevalent organisms such as staphylococci and streptococci appear brief, a large amount of information on each genus is incorporated, without overloading the reader with clinically irrelevant facts. Each of the generic chapters has a boxed resume on the first page, summarising the salient features of the genus under six subheadings—transmission, clinical features, complications, laboratory diagnosis, therapy and prophylaxis. This allows easy, rapid reference. The tables in chapter 8 discussing clinical syndromes are well laid out, again providing the essential facts and figures. The humorous illustrations are supposed to convey information about the particular aspect of bacteriology under discussion and aim to promote retention of a bacteriological principle or clinical characteristic of an organism group in an amusing manner.

For the breadth of clinical bacteriology that is covered in this book, it is good value for £12.95 and a handy quick reference source for various health-care workers interested in bacteriology.

P. FLANAGAN

Problems in Medical Microbiology

J. HOLTON, N. BRINK, P. CHIODINI and R. BENDALL. 1995. ISBN 0-632-03834-9. Blackwell Science, Oxford. Pp. 262. L14.95.

Microbiology and Immunology Casebook

J.T. BARRETT. 1995. ISBN 0-316-08132-9. Little, Brown and Co, Boston. Pp. 262. L14.50 (paperback).

The GMC has recommended that the undergraduate medical curriculum should encourage analytical thinking through problem-based learning methods and both these books claim to be a response to this directive. However, they are as

different in their approach to this educational method as the two continents from which they come.

Holton *et al.* use the traditional approach to problem cases. Questions are asked relating to cases presented on one page; answers are provided on another with appropriate references. The cases are arranged by micro-organism aetiology and there is a good balance between the most important infections caused by bacteria, viruses and fungi with a short section on parasitic infections. This book is well written, clearly laid out and excellently illustrated.

The approach taken by Barrett is entirely different. The philosophy, as stated, is to stimulate students to educate themselves. Laboratory microbiology, infections and clinical immunology are covered. Each case presentation is followed by some basic questions. Useful information in tables, and lists of broadly appropriate information sources are provided. However, there are no answers or commentaries on the cases; these are to be developed by the student. Barrett suggests that the questions provided are merely a start for student's learning. For example, a case of viral pneumonia might ultimately stimulate the student to consider what are the mechanisms of antigenic drift and shift in the influenza virus. The style of this book, and the nature of some cases presented, reflect its American authorship. There are no illustrations.

There are advantages and disadvantages in the different approaches of these books. The availability of answers in *Problems in Medical Microbiology* does not really encourage students to learn from asking questions themselves in order to solve problems, and in this respect it is not entirely consistent with what educationalists consider 'problem-based learning'. However, this approach does make it easy for students, at all levels, to test their knowledge in a quick, informative and enjoyable way. I expect it will find most use as a revision aid. In contrast, *Microbiology and Immunology Casebook* is a starting place from which self-education proceeds. To use it effectively, undergraduates need to be highly motivated and carefully guided by an experienced teacher. If used as suggested, learning through use of this book will be very labour-intensive; a medical undergraduate might be expected to complete only a few cases. This book will probably be of more use to postgraduate students and teachers.

M. GILL

Textbook of Diagnostic Microbiology

Edited by C.R. MAHON and G. MANUSELIA. 1995. ISBN 0-7216-4028-1. W.B. Saunders Company, Philadelphia. Pp. 1134. £29.95.

This textbook aims to provide a comprehensive introduction to diagnostic microbiology for those entering the field. The 1134 pages are divided into three parts which cover basic principles, the identification of significant isolates and the diagnosis of infections. The principles of laboratory safety and quality control are covered in early chapters together with concepts and procedures in antimicrobial susceptibility testing. How colonial morphology is used for the presumptive identification of organisms is described thoroughly. In addition to these (and other) traditional basic concepts, the first part also covers 'emergent technologies'. These include commercially available rapid identification kits and automated systems, chromatography, DNA probes and the polymerase chain reaction.

The laboratory identification of medically important bacteria, parasites, fungi and viruses is described in part II. As in part I, each of the 16 chapters in part II is laid out clearly with objectives, tables, diagrams and excellent photographs. Part III takes an organ system approach to diagnostic microbiology with chapters covering infections of the respiratory tract, skin, gastrointestinal tract, central nervous system, bloodstream, urinary tract and eye. Chapters are devoted also to sexually transmitted diseases, infections in special patient populations and zoonotic and rickettsial infections. Brief case studies illustrate the course of various infections.

This American book is surprisingly relevant to diagnostic microbiology in the United Kingdom and is well illustrated and easy to read. It covers comprehensively nearly all aspects of diagnostic microbiology (with the possible exception of outbreak investigations and hospital infection control) in an accessible manner and is eminently suitable for those new to the field, especially trainee medical laboratory scientific officers.

J.Z. JORDEN

Bacteria in Biology, Biotechnology and Medicine, 3rd edition

P. SINGLETON. 1995. ISBN 0-471-958115. John Wiley and Sons Ltd. Pp. 319. £15.95.

This is a new edition of the textbook published previously as *Introduction to Bacteria*. The aim of this book is to provide an introduction for university courses in applied biology, microbiology, biotechnology and the health, environmental and food sciences. In contrast to previous editions, a number of areas have been expanded, with particular emphasis on new developments in molecular biology. New to this edition are sections on food hygiene and food poisoning, bioplastics, the greenhouse effect, and the methodology of recombinant DNA technology.

The book is medium-sized (297 pages including an Appendix) and is complemented by many figures, most of which are helpful, although some are a little plain. In general, the text is well-referenced with the majority of references being up-to-date and relevant. The contents include an introduction to bacteria with chapters on the cell, growth and reproduction, differentiation and metabolism. These are followed by some basics of molecular biology and bacteriophages. The next section covers applications; e.g., bacteria in the living world, in medicine and in food. Finally, there are sections on practical bacteriology; e.g., man against bacteria, and the identification and classification of bacteria. Overall, these chapters are well written, although the order in which they are presented is a little odd.

This book is interesting and provides a good introduction to the subject. For its size it is very comprehensive and because of this suffers in being a little sketchy in places. There are very few typographical errors. I would have liked to have seen a greater emphasis on enzyme immunoassays rather than complement-fixation tests, and more on the implications of the worrying increase in antibiotic resistance. There is no mention of anaerobic cabinets or electronmicroscopy, and the description of the complement cascade would have benefitted from a diagram. Despite these minor criticisms this is a book that achieves its aim and I would highly recommend it to students for purchase, especially at the current price of under £16.

A.R. ELEY