
Book Reviews

Fifty Years of Antimicrobials: Past Perspectives and Future Trends. Eds P. Hunter, G. Darby and N. Russell. Pp. 376. (Society for General Microbiology.) Cambridge University Press: 1995. £60 (US \$115.00) (hardback). ISBN 0 521 48108 2.

The 53rd symposium of the SGM was devoted to an overview of antimicrobials and this book represents the written record of some of the key contributions. There are 376 pages, 15 chapters and 25 contributors if one includes Alexander Fleming, the first President of the Society, whose Linacre Lecture on the development of antimicrobial chemotherapy, delivered in Cambridge in 1946, is reproduced as the first chapter.

Within the overall subject area, the scope of the book is extremely broad. It would be a microbiologist with very wide interests who would already be familiar with most of the content of each of the chapters. While the main emphasis is on various aspects of antimicrobial therapy of human infections, there are sections on the control of fungi pathogenic to plants (Russell, Milling and Wright), the evolutionary advantages accruing to microbes through production of antimicrobial substances (Demain), virus insecticides (Bishop, Hirst, Possee and Cory) and biocides (Russell and Russell).

The contributors have kept well to their brief; each chapter consists of a concise review of the subject, ending in most cases with a succinct look into the future. There are several recurring themes: despite considerable progress in the isolation and development of new antimicrobials (and, one might add, the development of vaccines), infectious diseases worldwide are far from being controlled; antimicrobial resistance is an increasing problem everywhere, often exacerbated by thoughtless and inappropriate use of chemotherapeutic agents; difficulties continue in funding the development of new chemotherapeutic agents to be used in the treatment of infectious diseases important in the third world.

In 'The need for new antibiotics: possible ways forward' Zähler and Fiedler make the observation that though there are about 150 licensed antibiotics in Germany today, these are active at only six different microbial target sites. Thus the apparently broad armamentarium of chemotherapeutic agents available to doctors consists mainly of compounds which are variants on a few common themes. The authors discuss the strategies for detection of new antibiotic compounds, pointing out that screening of microbial culture

collections as currently carried out may now become more difficult.

In 'Who needs new antimicrobials?' Ryley focuses on the dilemma faced by pharmaceutical companies in deciding whether to proceed with an expensive research programme to develop a drug to be used in the third world, when there will be little or no money available to purchase it if the development programme is successful. This is despite the pressing need for new antimalarials and new drugs for treatment of many tropical infections. The establishment by WHO of a Special Programme for Research and Training in Tropical Diseases (TDR) funded by a number of countries, industrial companies and research foundations, and targeting six disease groups (malaria, schistosomiasis, lymphatic filariasis, onchocerciasis, leprosy, African trypanosomiasis, Chagas disease and leishmaniasis) is a step in the right direction. However, one cannot escape a feeling of frustration that funding in this area is so obviously difficult, while at the same time in Britain the latest third generation cephalosporin is given the hard sell. Do we really need any more cephalosporins or extended spectrum penicillins? Can we not start to use appropriately those we already have?

Kerr and Lacey have written an excellent and thoughtful chapter entitled 'Why do we still get epidemics?' They discuss a very wide variety of new and resurgent diseases and the reasons for their increased incidence. These range from outbreaks of Rift Valley fever associated with the construction of dams in Africa, through the apparent increased incidence of diseases such as chlamydial pneumonia and helicobacter infections, both due to better diagnostic and culture techniques, to a detailed account of the potential hazards posed by prion disease in humans. Their review is succinct but wide-ranging and the arguments on prion disease, though sometimes rather political, are well presented.

There are chapters on non-azole antifungals (Hunter), β -lactams (Rolinson, and Cohen and Aharonowitz), quinolones (Chu and Shen), antimalarials (Pudney), anti-protozoals (Croft) and antiviral nucleoside analogues (Darby). Each is supported by an apparently well-chosen reference list and provides an excellent summary of developments in the field.

Antimicrobial therapy is not a subject area that excites me as much as some other microbiological topics, and when I began reading this book I expected a worthy but rather pedestrian read. My prejudices were overcome and I found each contribution an enjoyable way to gain an overview of the particular topic. I will find myself dipping into individual

chapters to refresh my memory for some time to come. It is just a great shame that this book will never find its way on to the reading list of those prescribers who insist on trying out each newly marketed broad-spectrum antibiotic – an activity that in due course becomes self-fulfilling. It is becoming increasingly clear, to microbiologists at least, that as far as developing rational global policies for sensible antimicrobial prescribing is concerned, we are living on borrowed time. It's time we stated this more clearly both within the medical and veterinary professions, and more importantly to policy-makers.

K. A. V. CARTWRIGHT

*Consultant Microbiologist and Group Director, PHLS
South West*

HIV and Dementia. Eds M. B. A. Oldstone and L. Vitkovic. Pp. 279. Springer-Verlag, Berlin: 1995. DM 192.00. ISBN 3 540 59117 6.

Of the many neurological manifestations of HIV infection, the HIV associated dementia motor complex has proved the most fascinating to neuroscientists and alarming to patients. There is good evidence that it is extremely rare before there is either clinical or laboratory evidence of immunosuppression but the role of viral strain, viral load, cytokines, metabolites and excitatory neurotransmitters remain under

intense study. There is scientific interest in the mechanism of a dementia with less than perfect correlation with visible pathological processes or numbers of neurones, and great clinical relevance to these studies as indicative of therapeutic potential.

This book reflects these issues and goes into some detail about most of the evidence paying particular attention to the lessons to be learnt from animal models. It has the usual advantages and disadvantages of a book based on a meeting – there are data that have not seen the rigorous editing of peer review, and there are gaps in the overall coverage, but there are also chapters that might well be missing from a text book (e.g. the detailed discussion of the animal models). One black and white figure has an intriguing legend referring to the yellow line reminiscent for UK readers of the television commentary on a snooker game which helpfully assured those watching in black and white that the blue ball was the one behind the green.

For the clinician there are excellent reviews by Johnson, Price and Wiley, and for those interested in the neurobiology of the virus about cell–cell interactions. There is little or nothing about epidemiology, public health issues or the economics of the epidemic. This is much more a book for those in the neurosciences and virology, and for interested clinicians.

PROFESSOR MIKE HARRISON

The Middlesex Hospital, London