successful because the authors of the six sections have different views on where the cut-off should be between do-it-yourself and send-it-to-a-reference-laboratory. Another indication of minimal collaboration between authors is that the Bauer-Kirby method of antibiotic-susceptibility testing is described in similar detail by two of them in immediately adjacent chapters.

ROBERT BLOWERS

Advances in the biosciences, volume 12: Schering symposium on immunopathology

This is the published report of an international symposium on immunopathology, held in Yugoslavia in 1973. The first part of the meeting was on some basic immunological problems, such as immunoglobulin receptors and antigen recognition in lymphocytes, mechanisms of cell-mediated lysis of target cells, the interrelationships of complement activation and the blood coagulation pathways and amyloid.

The second part of the symposium was on immunopathological aspects of infectious disease. Indeed, it was the first international meeting at which this important subject was discussed at length. In addition to general reviews there were systematic considerations of animal models such as infections with lymphocytic-choriomeningitis virus in mice, where acute disease of the central nervous system is an immunopathological reaction mediated by T-lymphocytes and late glomerulonephritis is due to the accumulation of complexes of viral antigens and antibodies. The shock syndrome associated with dengue-virus infection in man was discussed by S. B. Halstead in relation to enhanced infection of leucocytes produced by antibody, and by V. A. Bokisch and colleagues in relation to complement activation. V. Houba and P. H. Lambert presented evidence that complexes of Plasmodium malariae antigen accumulate in the kidneys of Africans with a particular type of nephrotic syndrome. K. S. Warren and D. G. Colley outlined the role of cell-mediated immunity and eosinophils, respectively, in the immunopathological mechanisms which play such an important part in the pathogenesis of schistosomiasis.

Although this meeting was held more than 2 years ago, the text is still useful and most of the conclusions remain valid. The volume is well edited, with short printed discussions to each paper.

A. C. Allison

Medical microbiology. Volume two: the practice of medical microbiology

A criticism of the eleventh edition of Cruickshank’s “Medical Microbiology”, which appeared 10 years ago, was that it included a considerable amount of purely technical information of little interest to those not engaged in laboratory work. In order to correct this fault, the twelfth edition has been divided into two volumes, the first “aimed primarily at medical and science students and doctors” and the second, the subject of this review, “directed to professional and technical laboratory staff”. There are now four editors and twice the previous number of contributors.

Part I of Volume Two is essentially Part V of the eleventh edition revised and brought up to date and is concerned with technical methods. It is an admirable account of apparatus and methods used in medical microbiology laboratories.

Part II of the volume concerns the identification of microbes and the diagnosis of specific infections, and should read, according to the editors, in conjunction with Volume One. It represents the praiseworthy attempt to separate technical matter from other matter in the book, but it has to be admitted that there are not a few signs of schism. For all the editors’ attempts to avoid it, repetition is rife. This affects exclusively Volume Two, as Volume One
is complete in itself. For example, all the information on the properties of *Staphylococcus aureus* given in Volume One is repeated in the second volume, albeit in a more elaborate form, but if the laboratory worker wishes to know about the pathogenesis or epidemiology of staphylococcal infection, not included in this volume, he must sift through the account in the other to find it. In solving the problem of the non-technologists the editors have merely shifted it to other users of the book.

A further aim is to make Volume Two a "bench book". This has been largely successful, with sufficient information given for most procedures to be undertaken, or giving references to other authorities when it is not. It does not, however, give details on the routine processing of clinical samples but discusses them in the context of specific pathogens. As in all books of this type some subjects receive better treatment than others, and there are grounds for numerous minor disagreements. Why, for example, should a perfectly respectable group of mycobacteria continue to be labelled atypical? Why should *a-haemolytic streptococci* receive such scant attention in comparison with the enterococci? Why should not *Acinetobacter Iwoffi* receive attention if *A. anitratus* does, and why is the latter not indexed? And, although one agrees with the suggestion that most fungi should be sent for identification to reference laboratories, why is there so little on the fungi—five pages, in contrast with 14 for mycoplasmas?

One final item that deserves comment, particularly as students often have difficulty with it, is the typographical inconsistency found in headings that include the names of microorganisms. Thus we have *Pseudomonas aeruginosa* (best, in my view) in chapter 5, *Pseudomonas pyocyanea* (also correct, but inconsistent) in chapter 32, *Pasteurella multocida* (inconsistent and incorrect) in chapter 35, yet *Francisella tularensis* in the same chapter. One would not pretend that such variations in typography constitute a major problem, but they deserve correction when the opportunity arises.

In all, Volume Two of the new "Cruickshank" successfully completes what must have been the immense labour of a complete "rethink". Like the previous editions, the twelfth will find a secure place on the shelves of students, medical and technical, and of practising microbiologists.

IAN PHILLIPS

### Pathogenic microorganisms from atypical clinical sources


This is a record of the proceedings of a conference held at Yale University School of Medicine. It includes 20 papers on a wide range of topics divided into five parts relating to isolations from the blood, the respiratory tract, the central nervous system, urine and miscellaneous sources. There are papers on bacteria, fungi and yeasts, rickettsiae, mycoplasmas and viruses.

Whilst there is no doubt that parts of this text will be of special interest to various workers concerned with opportunistic infection, the volume has many of the disappointing features associated with a rather unstructured collection of papers given at a conference.

This is the first of a series intended to give workers an opportunity to present their data and their own interpretations. The general standard of presentation is not good and I cannot recommend this book.

J. G. Collee

### Effects of interferon on cells, viruses and the immune system


The discovery of interferon by Isaacs and Lindenmann in 1957 raised great hopes that here at last was a substance that could successfully be used for the treatment of virus diseases. Some 20 years later, and in spite of intensive efforts, we sadly have to accept that these high