BOOKS RECEIVED

Prion Diseases of Humans and Animals

Edited by S. B. BRUSINER, J. COLLINGE, J. POWELL and B. ANDERTON. 1992. ISBN 0-13-720327-6. Ellis Horwood. Pp. 583. £80.00.

This book comprises a series of 45 papers, some written by individuals and others by research groups, and is based largely on presentations made at an International Conference on prions held in London in September, 1991. The coverage in this rapidly advancing field is up to date and very comprehensive, and makes the book of value to researchers from the many disciplines involved in the study of prions and the diseases they cause. Because it was written primarily for specialists in the field, the book is inevitably highly technical, but the general reader who wishes to gain an understanding of the subject would find selective reading of about half of the book informative.

An unusual feature is a historical section of nine chapters written by researchers who were personally involved in studies of scrapie, kuru and Creutzfeldt-Jakob disease as far back as the late 1930s. Their accounts of the difficult task faced by themselves and their contemporaries, and of the way in which our present understanding of these diseases emerged, makes fascinating reading.

A section devoted to the human prion diseases describes all the mutations associated with familial forms and highlights the enigma that these disorders can occur as infective as well as genetic diseases with sporadic, iatrogenic and familial presentations. Subsequent sections cover animal diseases, the chemistry and cell biology of prion proteins, animal models and transgenic experiments. A concluding overview of prion biology and neurodegenerative disease brings together the various strands of this intriguing subject as it appears at present.

D. W. BURDON

Molecular Biology of Bacterial Infection. Current Status and Future Perspectives

Edited by C. E. HORMAECHÉ, C. W. PENN and C. J. SMYTH. 1992. ISBN 0 521 43298 7. Cambridge University Press. Pp. 329. £55.00.

This book is a report on the 49th Symposium of the Society for General Microbiology held at Trinity College, Dublin, in September 1992. Its appearance in print during the same year is a tribute to both the editors and the publishers. As pointed out in the editors' preface, this is the fifth volume of this series to deal primarily with microbial pathogenicity, and, as one would expect in the 1990s, concentrates primarily on molecular aspects.

However, generalists should not be put off. This is not a book purely for the molecular biologist. Genetic maps, amino acid sequence data and blurred photographs of electrophoretic gels are few and far between. This is primarily a book about pathogenicity in which it is demonstrated how

the newest techniques of molecular genetics have enabled us to increase our understanding of the mechanisms and development of bacterial virulence. Some chapters concentrate on virulence factors of particular organisms, such as *Haemophilus influenzae* lipopolysaccharide and epithelial invasion by *Shigella flexneri*; yersiniae also get a chapter of their own. *Escherichia coli*—the favourite tool of the bacterial geneticist—hardly gets a mention! Many of the chapters, particularly in the first section of the book, are designed to give more of an overview of the molecular basis of pathogenicity, and include contributions on the evolution of pathogenic bacteria, antigenic variation, resistance to intracellular killing and chronic infections. Inevitably there are areas of overlap between some chapters, but this adds to, rather than detracts from, the overall interest.

The book is well presented and the standard of editing is particularly high. A few extra illustrations and line drawings might have helped in some chapters. The book is excellent value for money and I would recommend it to all microbiologists with a passing interest in the pathogenesis of infection and bacterial virulence.

J. G. M. HASTINGS

The Staphylococci

Edited by J. JELJASZEWICZ and P. CIBOROWSKI. 1991. ISBN 0172-5629. Gustav Springer Verlag. Pp. 480. DM 298.00.

This is the sixth in a series of publications which document the proceedings of symposia on staphylococci held in Warsaw since 1965; the latest symposium took place in 1989. In essence, the book is a collection of 144 extended abstracts. In addition, nine "Main lectures", occupying 76 pages are presented at the start of the book. The most useful of these I found to be a review of the classification of staphylococci, a constantly evolving topic. T. Wadstrom also provides a thorough resumé of molecular aspects of the pathogenesis of staphylococcal wound and foreign body infections.

Of the abstracts, approximately half concern *Staphylococcus aureus*, a third coagulase-negative staphylococci, and the remainder cover staphylococci in general. The great majority of the abstracts are two to four pages in length and constraints of space have resulted in many methods sections being short on detail and relying on referencing. The quality of the work presented inevitably varies greatly. However, many of the major groups presently involved in staphylococcal research are represented. The tables and figures are generally of good quality; a series of electronmicrographs by A. Suganuma detailing the fine structure of *S. aureus* cells are particularly impressive.

This book is clearly not intended for the departmental coffee table; the price alone will dictate this. However, those involved in staphylococcal research will find it a useful source of references and a potential means of comparing their results with those of their contemporaries.

M. WILCOX