BOOK REVIEW

Glycomicrobiology

Edited by R. J. Doyle. 2000. ISBN 0-306-46239-7
(Hardback). Kluwer Academic/Plenum Publishers, pp. 560.
£114.00.

This is a new subject and illustrates the specialism that is taking place in microbiology. Interest in the subject is obvious by the ease with which the editor of this treatise, Dr Ron Doyle from the USA, has been able to bring together an international collection of authors covering a range of topics within the subject. Eighteen chapters are included covering different aspects of glycoproteins found in bacteria and the text excluding the comprehensive index extends to over 500 pages packed with detail relating to different structures in different bacterial species.

The editor cites three main reasons for producing the text, namely 'to provide a thorough discussion of carbohydrate-peptide linkages in bacteria'; to act as 'a forum for new information on adhesin-receptor complexes among bacterial pathogens'; and to evaluate 'the role of glycoconjugates in biotechnology'. One has only to look at the various titles of each chapter to see that considerable progress has been made in each of these areas and the content reveals the depth of our knowledge.

As a medical microbiologist and reviewer of this text most of my interest was centred on those articles that were related to my professional endeavours, i.e. the articles on meningo-

coccal pili, LPS and peptidoglycan interaction with CD14 antigen on macrophages, mycobacterial surface structures, *Escherichia coli* polysaccharide capsules and type 1 fimbriae. In each case there was lots of detailed information provided which extends considerably our knowledge of the structure and biosynthesis of the various bacterial components associated with pathogenicity. Each article is well referenced with very recent papers included. However, if one has to criticise the presentation of the articles for the 'almost-lay' reader then the relative infrequency with which authors have used summary or illustrative tables and figures would feature in my response.

My specialism precludes any real critique of most of the other chapters which deal with topics well outside my knowledge. Superficially, however, these articles demonstrate how much progress has been made in the research field in the last few years.

Overall the book provides an extensive review of our understanding of glycomicrobiology and reveals that the subject is still in the logarithmic phase of growth. The book will therefore be an important source of information and relevant literature references to active researchers in the field. However, it is likely to be confined to the bookshelves of such individuals and, therefore, likely to be a fairly rare but invaluable information source.

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