Book reviews

Surface Carbohydrates of the Prokaryotic Cell, edited by I. W. Sutherland, Academic Press, London, New York, and San Francisco, 1977, x + 472 pages, £19.50, \$38.00.

This publication provides a current view of the composition, biosynthesis, and control of the surface carbohydrates of prokaryotes. It is not a compendium covering every aspect of the subject. Instead, emphasis has been placed on topics that have received relatively little attention in review journals or other books. The work is intended, therefore, to stimulate new techniques and new approaches in this rapidly expanding field, as workers look at new genera and species and explore away from the enterobacterial norm.

In his introduction, the editor makes a brief survey of trends in previous reviews of the area, and usefully draws attention to the great scope that still exists for work on a broader basis. The subsequent chapters cover the following topics: the cytology of surface carbohydrates, the nature and production of exopolysaccharides, the composition and structure of bacterial lipopolysaccharides, teichoic acids, enzymes acting on bacterial carbohydrates, bacterial polysaccharide antigens, bacterial-surface carbohydrates and bacteriophage adsorption, the role of surface polysaccharides in natural environments, and the genetics, regulation, and radiation sensitivity of bacterial capsular polysaccharides.

The subdivisions within each chapter are listed at each chapter beginning and facilitate location of, and access to, the various aspects presented. Chapters are well-endowed with references in their self-contained literature-lists. In spite of the non-chemical "appearance" of many of the chapter titles, carbohydrate chemistry is well represented with formulae and tables of structures. The integration of the chemical, biochemical, and microbiological work presented has been neatly achieved by all of the contributors. The lack of undue bias in any direction makes the book equally attractive to readers from any of these three disciplines. Although no attention is drawn to it, the book is a welcome sister to Surface Carbohydrates of the Eukaryotic Cell, by G. M. W. Cook and R. W. Stoddart (Academic Press, 1974).

Surface Carbohydrates of the Prokaryotic Cell will be of primary value to undergraduates, research students, and workers in microbiology, biochemistry, and related fields. It should also be of interest to workers in the areas of cariogenesis and medical microbiology, as well as to those working in industry, where, currently, there is an upsurge of interest in extraction of polysaccharides from micro-organisms.

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