The summary of the area of clay knowledge is useful and the book is full of factlets of information. Who on earth did make up all those intriguing names for clays like montmorillonite, halloysite, illite, amesite? The book also points to an experimental attack on clays as possible replicating substances, a bonus for an overwhelmingly intellectual area of knowledge. So what to recommend? Few biochemists will want to buy it for themselves so really it depends on how much you want your own library to have a copy. Given the present stringent condition of funds I would have thought biochemists will prefer books with more biochemical information. If you are interested, look at the inter-library loan copy first and then you will probably leave it at that.

A.J. Trewavas

Protein-Carbohydrate Interactions in Biological Systems

The Molecular Biology of Microbial Pathogenicity

Edited by D.L. Lark

Academic Press; Orlando, FL, 1986

464 pages. $76.50

This book is a mine of up-to-date information on limited aspects of microbial pathogenicity. The meeting from which it derived was originally conceived 'to examine the genetic approach to microbial pathogenicity'. Over half the contributions deal with the genetic control of fimbria formation by entero- and uropathogenic *Escherichia coli* and by gonococci. The earlier over-simple picture of fimbriae organised from a single subunit protein and directly involved in bacterial adhesion is clearly no longer acceptable. Studies of uropathogenic *E. coli* show that minor proteins are organised along with the major structural protein and are necessary for the interaction of the fimbriae with oligosaccharide receptors on mammalian cells. Already observations suggest that this may be a general situation. The one section of the book specifically devoted to carbohydrate receptors has chapters on the structure of the L-arabinose-binding protein-ligand complex, the substrate specificity of myloglycosidase, and plasma membrane assembly. There is no mention, surprisingly, of all the excellent work on the interaction of cholera gen and *E. coli* LT toxin-B subunits with gangliosides or of the work on the interaction of other toxins with carbohydrate receptors. Indeed considering the subtitle of the book and all the molecular biology being done one might question whether one section out of eight is adequate to deal with our knowledge of the role of toxins in pathogenicity. There are chapters on various aspects of the pathogenicity of *Shigella, Yersinia, Pasteurella* and *Haemophilus* but most of these appear to be addressing a different audience from those dealing with fimbriae.

The book consists of 43 articles and abstracts of 34 posters which leads to an extremely condensed and disjointed style of conveying information and the editors might have been wise to restrict the subject matter and to have chosen a less ambitious subtitle. The book should certainly be read by all workers interested in fimbriae. It is beautifully produced and singularly free of printing errors. For this the editors are to be congratulated. As is unfortunately customary these days the high price of the book puts it beyond the reach of most individual scientists.

H.J. Rogers

Systems biology-based methods for the inference and analysis of PHI regulatory, metabolic, and proteinâ€“protein networks to shed light on infection mechanisms are gaining increasing demand thanks to the availability of omics data. The knowledge derived from the PHIs may largely contribute to the identification of new and more efficient therapeutics to prevent or cure infections.Â The crucial role of these interspecies molecular interactions in initiating and sustaining infections necessitates a thorough understanding of the corresponding mechanisms.Â Thus, systems biology of infection allows to yield novel therapeutic targets (Sarker et al., 2013) and to establish individualized or personalized medicine.