BOOK REVIEW

Current Topics in Microbiology and Immunology, volume 257: Pore-Forming Toxins

Edited by: G. VAN DER GOOT. ISBN 3-540-41386-3 (Hard-back). 2001. Springer-Verlag, Heidelberg. Pp. 166. £55.00

This book is a compilation of seven chapters on the main categories of pore-forming or membrane-damaging toxins. These are now widely recognised as determinants of pathogenicity in an increasingly wide range of gram-positive and gram-negative bacteria. The subject is introduced in a succinct overview by J. E. Alouf who briefly reviews the various classes of pore-forming toxins with a brief historical background and an indication of the functional activity and relevance to pathogenicity. The second chapter describes cholesterol-dependent toxins, which include the cytolysins of clostridia, streptococci, *Arcanobacterium*, *Bacillus* and *Listeria*. The third chapter focuses in some detail on *Aeromonas hydrophila* aerolysin which has some unique features. The applications of this toxin in cell biology, e.g. for separating

resistant parasites from susceptible host cells, are briefly summarised. The staphylococcal haemolysins and leukocidins also receive fairly detailed treatment, especially from a structural viewpoint.

In a very useful summary, R. A. Welch reviews the RTX toxins of gram-negative bacteria including *Actinobacillus*, *Bordetella* and *Pasteurella*. Montecucco and colleagues discuss the properties and possible mechanism of *Helicobacter pylori* vacuolating toxin, under consideration as a potential vaccine component but of special interest for its action on cytoplasmic structure. The final chapter deals with colicin pore-forming toxins.

This slim volume contains a remarkable amount of information and is recommended to anyone who wants a quick but authoritative introduction to the subject.

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