

## Book Review

*Molecular Biology of Bacterial Infection. Current Status and Future Perspectives.*  
Society for General Microbiology Symposium 49. C. E. HORMAECHE, C. W.  
PEEN AND C. J. SMYTH, eds. Pp. 329. Cambridge University Press; 1992. £55.  
ISBN 0 521 43298 7.

The *Molecular Biology of Bacterial Infection* is timely. The contribution of molecular approaches to progress in almost all biological fields over the past 10 years has been considerable, and pathogenicity not the least. This collection of reviews provides a clear and readable overview in a broad area where the volume of original publications is fast becoming overwhelming.

Three of the 15 chapters are dedicated to specific pathogens (shigella, haemophilus, yersinia), a fourth concerning salmonellas is linked to vaccine development and the remaining 11 focus on general mechanisms or processes and include two that encompass general (molecular approaches) and specific (the use of mutants) technical considerations. One consequence of this mix is that the same organisms are often used to illustrate particular points in many chapters. The editors exercised forethought in this respect and provided an additional species index which is especially useful for readers with interests in specific organisms.

Individual articles are balanced generally towards current status, and this is entirely appropriate. However, two with a distinct emphasis on future perspectives concern global regulation and chronicity, latency and the carrier state. Singled out for mention for different reasons, the former embraces concepts less familiar to many clinical microbiologists but with a future potential to build bridges between mechanism and practicality. The elucidation of hierarchical regulatory networks and recognition within these of the expression of pathogenic determinants offers the scope to resolve many anomalies between the *in vivo* and *in vitro* behaviour of pathogens. The latter because any assessment of the contribution of molecular biology should accommodate the difficult as well as classical areas, and this chapter provides an interesting perspective from which future work can be viewed. Examples cited include *Treponema pallidum*, Neisseriae, mycobacteria and salmonellas.

Collectively the articles range through the entire arena of pathogenesis from the evolution of pathogens to preventative strategies; coverage is concise and well referenced. For the reader familiar with molecular approaches applied to few or specific organisms the book offers breadth, whereas for the broader-based but less molecular microbiologist it provides a comprehensive and convincing justification of the contribution of molecular biology to our future understanding of infectious disease.

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