

would extend into space to a distance of 200 million light years!

I bet all the busy district general hospital pathologists who chance to read this review are now muttering to themselves about how teaching hospital microbiologists can waste their time writing about such irrelevant things, but in fact bacteriophages are important and I'll try to explain why. Much of our current knowledge of molecular biology owes its origins to the pioneering work of early phage researchers such as Max Delbrück, Salvador Luria and Joshua Lederberg. This book reviews the work of these early pioneers, but more importantly brings the story of bacteriophages up to date. Individual chapters are written by the recognised experts in the field, and review basic phage biology and ecology. The major part of the book contains chapters describing all the latest developments on the topic of phage contribution to bacterial virulence. Phages play an extremely important part in allowing relatively harmless bacteria to become pathogens. In fact, up to 6% of the genome of *Salmonella typhimurium* is believed to be made up of prophages. Most of the examples described in these chapters are virulence-linked bacteriophages such as the phage CTX ϕ , which encodes cholera toxin in *Vibrio cholerae*, or the phage β , which encodes toxin production in *Corynebacterium diphtheriae*, but there is also a fascinating chapter on phages and bacterial vaginosis in which the phage acts in an entirely different way. This book provides evidence that phage infection in vaginal lactobacilli may cause a decrease in these important commensal bacteria, resulting in the shift in vaginal bacterial numbers that is thought to cause bacterial vaginosis. It is proposed that these phages may be acquired sexually or that lysogenic phages

already present in commensal lactobacilli may become lytic as a result of exposure to environmental chemicals such as those found in cigarette smoke. Bacterial vaginosis is known to be more common in smokers. Some researchers have even suggested calling the disease "bacterial phaginoses". Some of the chapters on virulence also give details of the use of phages in bacterial detection or as therapeutic agents. Also included are some interesting descriptions of the therapeutic uses of phage products rather than the whole phage—for example, the enzybiotic murein hydrolase. The last chapter of the book describes the utility of phages in greater detail, such as their use in recombineering and in molecular display libraries. A final and relatively short chapter describes the use of phages in bacterial detection and as therapeutic agents. Although similar information is found in other sections of the book, this final account complements the opening chapter of the book, which describes some historical details of phage therapy.

To conclude, I think this is an excellent book, although it will be of major interest only to established phage biologists and those interested in the mechanisms of bacterial virulence. However, I can also recommend it to like-minded amateur phage enthusiasts.

I think it's time for another interesting fact on phages. Did you know that standard German war medical kits captured in North Africa from Rommel's forces contained vials of phages ready for injection or oral administration? Finally here's a question for you. How many phages are there in 1 ml of Norwegian fjord water? I'm not going to tell you, but if you want to know the answer, you now know where to find it!

P A Riley

CALENDAR OF EVENTS

Combined adult and congenital cardiovascular pathology course

29 November–1 December 2006, Royal Brompton & Harefield NHS Trust, London, UK.

This "hands-on" course approaches in detail the problems that face the diagnostic pathologist when dealing with cardiovascular pathology, both congenital and adult. The approach to a cardiac autopsy and sudden death will be emphasised. Cardiac specimens will be made available for analysis and there will also be video demonstrations. A slide seminar with slides is included. The course is aimed at trainees studying for the MRC PATH, and also at senior pathologists who wish to update their knowledge. The course fee is £400 (including coffee, tea and lunch). There is a special fee of £300 for junior doctors in training.

Further details: Short Course Office, National Heart and Lung Institute, Dovehouse Street, London SW3 6LY, UK; Tel: +44 (0)20 7351 8172; Fax: +44 (0)20 7351 8246; Email: shortcourse.nhli@ic.ac.uk

CORRECTION

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The title of the Letter to the editor (Smith G, Waddell N, Riley A. The benefits of elastica – no stretch of the imagiacion. *J Clin Pathol* 2006;59:888–9) is incorrect. The correct title is: The benefits of elastic – no stretch of the imagination.