BOOK REVIEW

DNA Vaccination/Genetic Vaccination


'Prevention is better than cure' is a sine qua non of all health services research. In the area of infectious diseases, enormous progress has been made in the 200 years following Jenner's observations in developing safe and effective vaccines — witness the elimination of smallpox, soon to be followed (hopefully) by poliomyelitis. However, past success should not make us complacent — indeed there are considerable challenges facing the vaccinologists. Design of protective vaccines against both old (e.g., malaria) and new (e.g., human immunodeficiency viruses) infectious agents poses a variety of basic scientific and practical clinical problems. Recent advances in the areas of molecular biology and immunology have combined in the last decade to provide a fuller understanding of the nature of protective immune responses to a variety of antigenic challenges, and to suggest novel ways and means of inducing such responses in humans.

One such novel approach, that of using naked DNA as vaccine, is described in detail in this monograph. The editors have assembled a cast of expert authors to describe the current 'state-of-the-art' of DNA vaccines in their own fields. In 11 chapters, the book covers the use of DNA/genetic vaccination in the areas of cancer, malaria, hepatitis B, herpes simplex virus, HIV and other immunodeficiency viruses, HTLV-1 and a number of veterinary pathogens. An introductory chapter for the non-expert might have been of benefit, but by the end of the book, as a clinical virologist I felt I had learnt much about the principles involved in, and the potential of this technology, in addition to an understanding of how the application of such vaccines may be tweaked in order to amplify the immune response, or to direct it to specific targets.

Some of the experimental results presented in this book in animal models are quite spectacular, and data derived from human subjects are also encouraging. It will only be a matter of time before DNA-based vaccines are developed sufficiently for routine use in man. I recommend this book as a timely review of current data derived from an exciting and novel approach to vaccine design.

W. IRVING

Summer Meeting of the
Pathological Society of Great Britain and Ireland
University of Dundee, 7–9 July 1999

The Microbiology Division has arranged two symposia; one (in conjunction with the Society for Anaerobic Microbiology) is entitled 'Clostridium Infections of Man and Animals' and the following speakers have agreed to contribute: Professor S. P. Borriello (London), Professor E. Stackebrandt (Braunschweig, Germany), Dr R. Tithall (Salisbury), Professor D. Gerding (Chicago), Dr T. Netherwood (Newcastle), Dr L. C. Hunter (Edinburgh), Ms T. Ekong (London), Dr M. Brett (London). A half day Symposium on 'Microbial Host Interactions in the Gut' with Dr G. MacFarlane (Cambridge), Professor C. Dorman (Dublin), Professor M. Kerr (Dundee), Dr J. Crabtree (Leeds) and Dr J. Ketley (Leicester) as speakers has also been arranged.