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## Gavin Brooks, Gene Therapy – The Use of DNA as a Drug

London: Pharmaceutical Press, 2002. 328 pages

paperback. £29.95 ISBN 0-85369-455-9

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This book presents an accessible snapshot of the state of play in the area of gene therapy. The subject is treated on a disease by disease basis with each chapter dealing with a different set of related diseases. Diseases include cancer, rheumatoid arthritis, cardiovascular diseases, infectious diseases, neurological disorders and others. Before the substantive chapters there are introductory chapters detailing DNA/RNA biochemistry and the issue of gene delivery. The gene delivery issue is such a serious limitation to progress in this area that all chapters address the issue of the poor delivery options available. This leads to some repetition, which is probably difficult to avoid. Viral means of delivery, being the more extensively tested options, are heavily treated in *Gene Therapy*, while non-viral means of delivery receive sparse coverage in comparison.

Although most of the chapters describe potential DNA therapies, the use of oligonucleotides is also given adequate coverage. A particularly well written chapter is the section on gene therapy for the treatment of cardiovascular diseases. This chapter presents epidemiological evidence of the problem – albeit with data from the American Heart Association in most instances. The chapter also describes

the pathogenesis of the various conditions, conventional therapies used, potential gene therapy alternatives and finally highlights gene therapy experimental data.

Despite the fact that cancer gene therapy has probably been tried on more patients than any other patient group, details of the disease prevalence and an overview of competing conventional treatments have been largely omitted. I must admit that I found the xenotransplantation chapter a little out of place in this book, as transplant material is not normally considered as a conventional gene therapeutic.

Gene therapy, as a science, is a fast moving area, unavoidably dating the text instantly. The problems associated with a rapidly changing area are borne out sharply by the chapter on the Human Genome Project. This is a good introduction to the potential of this project, however the book had reached the proof stage before publication of a working draft of the Human Genome had taken place.

The editing of this text must be commended as all chapters come across as easy to read and accessible. There is also a minimal loss of detail with most of the chapters. On the whole this can be regarded as a good introductory text for both medical and pharmacy students and even for new researchers entering the area, as the book positions gene therapy as the future for the treatment of largely incurable diseases.

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