
Preface

The rapid progression of genetics and molecular biology has turned chromosomal engineering from science fiction to reality. Transgenic animals with engineered chromosomes have been produced with success, and chromosomes developed for pharmaceutical protein production are now ready for the medical industry. Engineered chromosomes have also been used in preclinical model experiments for ex vivo stem-cell therapy.

This volume is intended to provide the reader with up-to-date information on this rapidly evolving field, and will attempt to take the reader into the exciting realm of chromosomal engineering from the basic principles to the practical applications of these new technologies. The five overview and ten protocol chapters cover the engineering of chromosomes with extrachromosomal vectors and transposon systems, the manipulation of naturally occurred minichromosomes, the generation and engineering of synthetic artificial chromosomes, and the induced de novo platform artificial chromosome system.

The efforts of the authors and editors will hopefully provide a manual that serves as a bench-side resource for current protocols and help explore prospects for future research and applications.

I am greatly indebted to all contributors, who devoted their precious time to share ideas and expertise that brought about this book, which will be a source of information for anyone interested in new ideas in gene technology.

Szeged, Hungary

Gyula Hadlaczky



<http://www.springer.com/978-1-61779-098-0>

Mammalian Chromosome Engineering
Methods and Protocols

Hadlaczky, G. (Ed.)

2011, IX, 257 p., Hardcover

ISBN: 978-1-61779-098-0

A product of Humana Press