

Gene Cloning. By D. M. GLOVER. London: Chapman & Hall. 1984. £15.00, U.S. \$29.95. ISBN 0412 26600 8.

This is the second edition of 'Genetic Engineering—Cloning DNA' which first appeared in 1980. Students have assured me that the first version was indispensable, so much so that copies disappeared mysteriously, never to return. The rate of progress in Genetic Engineering since 1980 has been astonishing. This is reflected in the difference in size between the two editions, the first a slim 77 pages, the second a more substantial 222 pages. This second edition is an excellent description of the theory and application of all the techniques necessary to clone a gene, study its organisation, mutate, reconstruct it and reintroduce it into cells and organisms for a variety of purposes. In 1980 no one had reintroduced genes into fruit flies, mice and plants. Not only has this been achieved but it has also been demonstrated that the reintroduced genes in 'transgenic' animals are subject to the normal developmental and cell-specific controls. Some of the recent advances in this area are summarised in the final chapter of the book together with a description of most of the new viral vector systems. This chapter supersedes the more speculative final chapter of the first edition which was entitled 'Approaches For Studying Expression in Eukaryotic Systems'. There is also a short new section on the molecular analysis of human diseases. There is no waffle in this book; all the information is presented with clarity and there is very little redundancy. There are eight chapters entitled (1) The principles of cloning DNA, (2) Recombination and mutagenesis of DNA *in vitro*, (3) Bacteriophage vectors, (4) Bacterial plasmid vectors, (5) Expression of cloned DNAs in *E. coli* plasmids, (6) The physical characterization of cloned DNA segments and their counterparts within chromosomes, (7) Gene cloning in fungi and plants and (8) Expression of cloned genes in animal cells.

A graduate technician in my laboratory has summarized my feelings, though from a more informed perspective – 'This is the best introductory text on recombinant DNA I have seen' or words to that effect. Several students in this Unit have already purchased copies. It is an ideal introductory text for undergraduates, graduate students and scientists from other disciplines who feel the need to become acquainted with the powerful tools of molecular biology.

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Genetics of Reproduction in Sheep. By R. B. LAND and D. W. ROBINSON. Sevenoaks, Kent: The Butterworth Group. 1984. £40.00 Hardcover. ISBN 407 00302 9.

This book is a symposium volume that is well described by its title. It is the outcome of a workshop held in Edinburgh in the summer of 1983, organized jointly by the Animal Breeding Research Organization and the U.S. Small Ruminant Collaborative Research Support Program. With one or two omissions noted below, everyone who matters in the area, and some who do not, seem to have been there. The result is 39 chapters by about twice as many authors. It is something of a tribute to the editing that you do not realize the range of the authorship without looking at the table of contents.

The breadth of coverage is enormous, with everything from the morphology of the genital organs of alpacas to some pretty demanding biometrics. I had not realized that alpacas were sheep, nor for that matter do I still. But as this is one of the more interesting