Book reviews

Journal of Medical Genetics 1981; **18**: 160

The Management of Genetic Disorders

Progress in Clinical and Biological Research vol 34.
Edited by C J Papadatos and C S Bartsocas.
(Pp xii + 424; figures + tables. £32.00) New York:
Alan R Liss. 1979.

This book is the proceedings of a symposium held in June 1979 and bears the hallmarks of most such volumes—uneven quality, hurried production, and poor editing. The symposium itself must have been an interesting one, but the wide variety of topics covered, while admirable for oral presentation, is much less satisfactory in a book. The problem stems partly from differing interpretations of 'management'. A number of chapters relate almost entirely to genetic counselling, others to diagnosis, while other chapters on therapy of diabetes and thyroid disease have little relationship to genetics.

A major criticism must be the apparent lack of editorial influence on selection of material, presentation, and correct use of English. The poor quality of production, though no doubt rapid, adds to the impression of a series of manuscripts hastily bound together, and makes tiring reading.

Having made these criticisms, there are some really valuable contributions. The chapter by Crawford on Turner's syndrome is an excellent example of the value of long term supervision in achieving optimal growth and maturation and in preventing complications. Crawford contributes a further valuable chapter on management of children with ambiguous genitalia, while other worthwhile contributions are on sickle cell disease, cystinosis, and the mucopolysaccharidoses, by Lehmann, Schulman, and Leroy, respectively. Rosenberg and Scriver both contribute clear general reviews on the approaches to therapy.

All in all, this book is a missed opportunity. There is a need for a comprehensive book on management of various genetic disorders, but it will need to define its aims and scope clearly and to be carefully planned. A conference report, however good some of its contributors, cannot fulfil this need.

PETER S HARPER

Principles of Gene Manipulation. An Introduction to Genetic Engineering

Studies in Microbiology vol 2. By R W Old and S B Primrose. (Pp ix + 138; figures + tables. £10.00) Oxford, London: Blackwell Scientific Publications. 1980.

Genetic manipulation or genetic engineering is a technology which is becoming widely used in biological research and industry. It has therefore become difficult for scientists not directly involved in the field to keep pace with the literature. The publication of this book is therefore well timed and will allow its readers to get an idea of the present 'state of the art' in the field. The book requires that the reader has a background in basic molecular biology and is therefore directed at advanced undergraduates and research workers.

The authors describe the use and basic enzymology of the enzymes used in the preparation of recombinant DNA molecules (restriction enzymes, DNA ligase, terminal transferase, etc). A number of examples are given of the different approaches and methods used in the formation of the recombinant molecules. Three sections cover in detail plasmid, bacteriophage, and eukaryotic cloning vectors. They cover the basic biology, the construction, and the manipulation of cloning vectors used in genetic engineering and in all cases examples are given. The advantages, disadvantages, and variable applications of the different vector systems are also discussed. The expression of cloned DNA sequences is also covered in this book and the development of vectors resulting in enhanced expression and in the production of proteins from cloned sequences are described with examples. It must be realised, however, that this is an area of the field which has developed tremendously over the past 12 months and many important new advances are therefore not covered.

The book gives a good introduction to the field of gene manipulation with clear descriptions and discussion of the systems used. My only criticism is that the authors have failed to speculate sufficiently on the further development and application of the technology.

DEREK WOODS