

## *Molecular Cell Genetics*

Edited by Michael M. Gottesman

*John Wiley & Sons; New York, 1985*

931 pages. £92.45

This text presents a comprehensive review of the contribution of Chinese Hamster cell lines to the study of eukaryotic molecular genetics. The three sections describe the historical development and characterization of Chinese Hamster cell lines, the recent technical developments (including recombinant DNA techniques, cell hybridization and chromosome isolation) and detailed reviews of the developed genetic systems. The latter section comprises some two-thirds of the book and includes a wide variety of research topics under the headings of intermediary metabolism, cell structure and behaviour and mechanisms of genetic variation.

The title of the book is somewhat misleading as

it focusses upon the Chinese hamster cell lines though some comparison with non-Chinese hamster cell systems is included. Each of the chapters, which have been contributed by leading exponents of the field, is self sufficient. Although they contain some minor repetition this enables the informed reader to proceed comfortably through the text without the need for constant cross referencing. The perspective provided by the historical reviews and the detailed descriptions of the diverse research systems ensure that the book will make an excellent library reference text for many years to come.

R.J. Smith

## *Human Genetic Diseases: A Practical Approach*

Edited by K.E. Davies

*IRL Press; Oxford, 1986*

xiv + 138 pages. £14.00, \$25.00

Human Genetic Diseases: A Practical Approach represents another addition to this excellent series which gives both readable and informative introductions to current laboratory methodology. According to the editor this book aims to 'serve as a guide for anyone wishing to analyse a particular genetic disease whether for pure research purposes or for genetic counselling'. The book indeed seems to succeed in bridging the gap between the simpler more theoretical treatments of the subject aimed at clinicians such as Weatherall's 'The New Genetics and Clinical Practice' and the more stodgy protocols of some other practical manuals. As such it appears to represent a rare species which should be valuable for both the clinician and scientist.

Human Genetic Diseases covers a span of topics ranging from those directly applicable to current clinical diagnosis and research (fetal DNA analysis using RFLPs, an introduction to linkage analysis, the detection of specific mutations using oligonucleotide probes as well as alternative techniques based on resin-coupled DNA) to more basic chapters on molecular genetic analysis (chromosomal analysis by flow sorting and in-situ hybridisation, pulsed field gradient gel analysis of large DNA molecules and the analysis of the transcriptional unit). The very existence of the book is a tribute to the burgeoning application of molecular techniques to medicine. This popularity has made it difficult not to duplicate the seemingly

endless published protocols for filter hybridisation techniques and probe production. The authors have succeeded, however, in producing short interesting treatments of these and have added details not included in other texts.

Taken as a whole, Human Genetic Diseases

represents a well balanced very readable reference manual with a fair proportion of new information. I would recommend it as a valuable addition to the shelves of both clinical and basic science laboratories.

S.A. Whatley

## *Advances in Gene Technology: Molecular Biology of the Endocrine System*

Edited by D. Puett et al.

*Cambridge University Press; Cambridge, 1986*

402 pages. £27.50, \$49.50

This book is the meeting report of the 18th Miami Winter Symposium held in February 1986. The book is organised into six sections: Peptide and Polypeptide Hormones; Growth Factors and Oncogenes; Peptide and Protein Receptors; Glycoprotein Hormones; Steroid Receptors and Gene Regulation; Lymphokines, Interleukins, Interferons and Receptors. Within each section there are four page abstracts from each of the invited speakers (from three to seven in each section) and a number of two page abstracts from each of the poster presenters at that session. This book is therefore an abstract of the meeting. The stated intention of the editors and publishers is to make available a useable copy of the information presented in the talks and posters at the meeting for the use of those researchers unable to attend the conference.

However, there are serious drawbacks with the format of the book which render it useless. The four page reports from the invited speakers are not long enough for any of them to give any type of review or useful technical information. Nor has the publication time been short enough for the book to be of use for alerting other workers to exciting findings 'in press'. Thus the deadline for abstracts was November 1985. The poster presentations are even less satisfactory as in two pages the majority of the authors fail to do justice to the work they are presenting. The beauty of poster sessions is

that one can question the experimenter directly on minute technical details if necessary. No book can capture this. We feel that if a poster presenter wishes to reach a larger audience he should present his poster at several meetings. Publication of poster abstracts acts to deter this approach since multiple publication is frowned upon. Work of any note will in any event be published subsequently in the scientific literature.

It seems likely to us that the meeting was of a very high quality. For the reasons stated above this does not come over in the book. Although there are seven editors it is not clear what they have done. If there are to be books from conference proceedings it would be much better for an editor to invite those contributors who, in his opinion, gave the most interesting presentations to submit book chapters after the meeting. Such contributors could, of course, mention other work presented at the meeting. In other words a good conference book can only be produced with strong editorial control.

Finally, at \$49.50 a copy this book has no clear market. It is merely an untidy collection of camera-ready abstracts containing out-of-date information. In our copy page five was missing! We would recommend it to no-one.

John Hardy and Keith Johnson

Puett D, Ahmad F, Black S, Lopez DM, Meiner MH, Scott WA, Whelan WJ (eds): *Advances in Gene Technology: Molecular Biology of the Endocrine System*. Proceedings of the 18th Miami Winter Symposium. ICSU Short Reports, Vol. 4. Cambridge: Cambridge University Press, 1986. Google Scholar. *Recent Advances in the Molecular Biology of Vitamin D Action*. Embryology, Developmental Biology, and Anatomy of the Endocrine System. PDF Reader. Full Text. This book is the meeting report of the 18th Miami Winter Symposium held in February 1986. The book is organised into six sections: Peptide and Polypeptide Hormones; Growth Factors and Oncogenes; Peptide and Protein Receptors; Glycoprotein Hormones; Steroid Receptors and Gene Lymphokines, Interleukins, InRegulation; terferons and Receptors. Within each section there are four page abstracts from each of the invited speakers (from three to seven in each section) and a number of two page abstracts from each of the poster presenters at that session. In modern molecular biology and genetics, the genome is the genetic material of an organism. It is encoded either in DNA or, for many types of viruses, in RNA. The genome includes both the genes and the non-coding sequencing of the DNA/RNA. Toxicogenomics; the analysis of the effect of toxic chemicals on genes, including mutations created by toxins and changes in gene expression caused by toxins. Metagenomics. the analysis of genomes of organisms collected from the environment • Nutrigenomics; the analysis of the relationship between genes and diet • Pharmacogenomics; the development t of a customized medicine based on a person's genetic profile for a particular condition. •