Book reviews

Clinical Genetics — A Short Course. Golder N. Wilson. John Wiley and Sons, Inc., New York. 2000. Pp. 477. Price £32.50, paperback. ISBN 0 471 29806 9.

Perusing the many books on display at the recent British Society of Human Genetics meeting in York, I was immediately attracted to this book, with its striking and colourful cover. As module co-ordinator for a specialist genetic course for nurses, I am always on the lookout for good clinical texts aimed at undergraduates. Although there are several such books on the market, there is always room for another if clearly written and appropriately pitched. The author has managed to source an excellent collection of clinical photographs and has taken the trouble to obtain consent, thus enabling a full face to be shown. All books in this category suffer financial constraints in the production of explanatory diagrams, and like so many others, Wilson has fallen into the trap of producing over-complex diagrams. For example, there is an almost unintelligible drawing illustrating the use of a reciprocal translocation to jump from a known gene fragment to an unknown gene fragment.

I am not convinced that the level of scientific detail provided is appropriate for first and second year medical students, the target audience for the book. Too much technical detail may give an impression that clinical genetics is dreary and complicated rather than patient-based and exciting. The use of the McKusick number for referencing is helpful and facilitates the use of the book as a reference work. I am a great supporter of case-based teaching and the author is to be congratulated on her choice of easy to-read case studies. However, the stylistic device of staggering a single case throughout a chapter is somewhat contrived and confusing. A notable deficiency in the text is the paucity of information on cancer genetics, which accounts for over 40% of referrals to many clinical genetic centres. This may reflect the difference in service provision between the USA and Britain.

At the end of each chapter a set of multiple choice problems is posed, often dealing with complex or rare conditions. The answers are given in two ways; firstly as an upside down letter at the end of the problem set, a device I found rather irritating, and secondly as a useful discussion paragraph. Having spent six years attempting to educate health professionals in Huntington's disease, I was disappointed to find the term Huntington's chorea being used interchangeably. Whilst recognizing my over-sensitivity in this area, I do feel that this book would have benefited from more careful proof reading.

In summary, the main failing of this book is in the identification of a specific target readership. As a text for medical students and counsellors it is over-complex.

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The Horizontal Gene Pool — Bacterial Plasmids and Gene Spread. Christopher M. Thomas (ed.). Harwood Academic Publishers, Amsterdam. 2000. Pp. 419. Price £69.00, hardback. ISBN 90 5702 462 4.

Every molecular biologist perceives the usefulness of bacterial plasmids in recombinant DNA technology. Indeed, it is difficult to imagine how the biosciences revolution which is currently taking place could have occurred without the development of plasmid-based gene cloning and over expression strategies. However, the importance of plasmids in bacterial persistence, diversity and evolution, and as model systems for analysing processes such as DNA replication and segregation, is less widely appreciated. This book, like David Summers' *The Biology of Plasmids* (1996), attempts to bring together many aspects of plasmid biology into a single volume. However, unlike Summers' less daunting volume, which is largely accessible to readers with a fundamental but inexhaustive knowledge of molecular biology, this book is best appreciated by those comfortable with the intricacies and jargon of current molecular biosciences.

The strongest aspect of the book is in the overviews of the fundamental mechanisms by which plasmids replicate, segregate, transfer and evolve. The editor, Chris Thomas, has successfully melded the opinions of many experts in these topics without sacrificing coherence. The emphasis in these chapters is on providing relatively detailed factual descriptions of the best understood systems, albeit with some inevitable bias towards the authors' favourite plasmids. Although few new concepts are presented, the contributors wisely emphasize that much remains to be learned. The comprehensive reference lists which accompany these chapters are useful pointers for those wishing to investigate the topics more fully. Chapters devoted to plasmid ecology, the contribution of plasmids to bacterial population genetics, and the isolation and characterization of plasmids from environmental samples, provide an interesting

counterbalance to the more molecular-orientated chapters, but the over-riding impression is that the former studies suffer greatly from the fact 'that only a minor proportion of bacteria is accessible to cultivation techniques'. As the characterization of plasmids in environmental studies frequently requires bacterial cultivation before plasmid isolation, with a consequent bias towards the analysis of plasmids from culturable bacteria, plasmid ecological and population studies seem fraught with uncertainties.

A collaborative book of this sort inevitably lacks reference to a number of interesting developments which have taken place in the last two years. As an example, no mention is made of the recent structural studies of the integrase family of site-specific recombinases. Nevertheless, this book is a mandatory addition to the bookshelves of every research group with a

strong interest in plasmid biology, and will also serve as an invaluable reference tool for every molecular microbiology laboratory for some years to come. The book's appeal to those outside these communities is less apparent, especially considering that it is not inexpensive. It is to be hoped that updated editions of the book will emerge at regular intervals.

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Books Received

Techniques in Quantification and Localization of Gene Expression. Bruce K. Patterson (ed.). Birkhäuser Verlag, Basel. 2000. Pp. 150. Price DM 208.00, hardback. ISBN 0 8176 4034 7.

Techniques in Animal Cytogenetics. Paul Popescu, Hélène Hayes and Bernard Dutrillaux (eds). Springer Verlag,

Heidelberg. 2000. Pp. 229. Price £44.50, hardback. ISBN 3 540 66737 7.

Genetic and Evolutionary Diversity — The Sport of Nature (2nd edn). Laurence M. Cook and Robert S. Callow. Stanley Thornes, Cheltenham. 1999. Pp. 290. Price £22.50, paperback. ISBN 0 7487 4336 7.