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SPRING BOOK REVIEWS

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Genetics. J M Friedman, F J Dill, M R Hayden, B C McGillivray. (Pp 250; £13.95.) London: Williams & Wilkins. 1992

I suspect this book must be read as one of the many titles in the National Medical Series for Independent Study. This is a list of texts produced to aid students prepare for predominantly United States Medical Board examinations. Genetics, we are told, belongs to the basic science rather than the clinical science series. You may perceive I began to have doubts about this publication even before I had left the preface behind.

What follows are 198 pages of note form factual information. Chapters move from gene structure and chromosomal organisation to population genetics to techniques of DNA diagnosis and finally to two chapters on clinical genetics. One has to say that the book is quite a remarkable achievement on the part of the four authors, all colleagues in the Medical Genetics Department at the University of Vancouver. However, this close working relationship has not prevented a number of irritating repetitions and, given the pressure for space, these should be weeded out in a future edition. The pages are crammed with power punching information; blink and the technique of PCR will be lost on the unsuspecting. Indeed it is for such a novice that my heart bleeds. I am bewildered to imagine either a medical student or recent undergraduate (whom the authors state to be the intended audience) leaving this volume both confident, or perhaps more importantly satisfied, in their endeavours to embrace modern clinical genetics.

On the positive side, the book is heaven sent to the student who prefers to hang on every word of his course tutor rather than take lecture notes. The content is comprehensive and I noted few errors. It would also be welcome to course tutors as a useful source of examination questions; the final section provides over 150 questions and answers relevant to the text. The book is up to date in a field moving faster than any other in medicine. However, its brevity without clues to source information or original references must leave the more inquisitive reader less than inspired. The authors state they "hope to encourage all aspiring physicians to share in the excitement of thinking genetically". I must express reservations that this text will have limited value in contributing to this important objective.

RICHARD TREMBATH

Prader Willi Syndrome and Other Chromosome 15q Deletion Disorders. NATO ASI Series H Cell Biology Volume 61. Edited Suzanne B Cassidy. (Pp 265; DM 198.) Berlin: Springer-Verlag. 1992.

The list of titles preceding this volume in the NATO Advanced Science Institution Series H (cell biology) contains expressions such as "signal transduction . . . cell to cell junctions . . . translational apparatus" which seem surprising bedfellows for a volume on chromosome 15q deletion disorders. I guess the cell biological connection lies in the term 'imprinting', a concept which has recently acquired quasi-religious significance for the clinical geneticist. Fortunately, many papers given at the first international workshop (May 1991) on Prader-Willi syndrome (PWS) and related disorders and collected together in this volume make no mention of imprinting and instead provide an up to date survey of clinical, cytogenetic, and molecular studies currently in progress. Although clinical aspects of PWS are given extensive coverage, considerably less space is devoted to Angelman syndrome. I suppose this may reflect current research activities and thus indicate potential for further clinical studies of the latter important disorder. Several patients with proximal 15q deletions, but neither of the above clinical syndromes, are discussed in a single detailed contribution. Naturally PWS and Angelman syndrome are compared and contrasted in papers dealing with cytogenetic and molecular genetic findings. It is very helpful to have data from different research groups published back to back and it can be seen that no major discrepancies arise, although much remains unexplained. From my personal point of view, a conclusion worth emphasising is that careful clinical diagnosis remains crucial in PWS and Angelman syndrome. In summary, this volume will be useful in the clinic and in the laboratory for tackling diagnostic problems and for assessing the utility of molecular genetic investigations. However, its main value lies in graphically illustrating how little we actually know, so I believe anyone seeking an account of the cell biology of PWS and Angelman syndrome will be disappointed. Perhaps NATO, having been relieved of weightier responsibilities, could be persuaded to sponsor a fresh appraisal of these two syndromes in five or 10 years time. A report of the meeting and abstracts of contributions to it were published in the *American Journal of Medical Genetics*, volume 42, pp 220–69.

JOHN TOLMIE

The Code of Codes. Scientific and Social Issues in the Human Genome Project. Edited D J Kevles, Leroy Hood. (Pp 397; £23.95.) London: Harvard University Press. 1992.

Readers of the Journal will be well acquainted with the technology and medical implications of the Human Genome Project. But perhaps not everyone has considered all the social, ethical, and legal consequences, and no doubt fewer will be aware of the political infighting which the Project has engendered. All these matters are discussed at great length in this new book of some 14 chapters, divided into three parts: History and politics, Technology, and Ethical and legal considerations.

The Project officially began in 1991 and is estimated to be completed in possibly 10 to 15 years time. One contributor believes that within 10 years, with advances in instrumentation and technology, a single technician may be able to sequence 10^6 base pairs a day! And currently the costs are put at around a dollar a base pair. The contributors are all enthusiastic that this concentration of effort and resources is well justified, but it would have been valuable to have had the views of those who are not so enthusiastic, of which there are, of course, many on both sides of the Atlantic.

Important ethical, legal, and social problems will be generated by the Project: matters of confidentiality, discrimination by employers, stigmatisation by society, sharing of results, and patenting of sequences, etc. To address these and similar concerns NIH has allocated 3% of its genome budget. Some consider this as evidence of a genuine concern with these matters. Others, I suspect, will realise that to really embark on any meaningful programme will involve considerably more expenditure as well as an ongoing commitment.

Many of the contributors are internationally known experts and write with authority. They include, for example, Kevles (whose *In the Name of Eugenics* (Penguin) has become a classic), Judson, Gilbert, Caskey, and Nancy Wexler. James Watson's 'Personal View' is particularly revealing when one realises that Bernadine Healy, who is now head of NIH, is replacing him as head of the Project.

As with many multi-authored texts, there is often overlap and repetition and there is occasionally an element of chauvinism. But, having said this, there is much to interest and provoke thought in this new text.

ALAN EMERY

The Atlas of Mouse Development. Matthew H Kaufman. (Pp 512; £80.00.) London: Academic Press. 1992.

This splendid volume is rather grandly called *The* Atlas of Mouse Development. Given the author's approach it is difficult to see anyone else going through the exercise again, so that the title is probably justified. The aim of the book is to "provide an histological account of the development of the mouse spanning the period from fertilization to term". The method used is to assemble a comprehensive collection of meticulously prepared and labelled histological sections at different gestations. The book is intended as a 'workshop manual' rather than a text book of embryology. As the author points out, it is difficult to reconstruct a three dimensional image in the mind from a series of sections. Although he recommends the exercise as ultimately rewarding, only those directly involved in studying mouse embryos will want to invest in the considerable effort needed to attain this level of understanding.

The plates would have been better in colour, but again this would have made the price of the book prohibitive. Perhaps in the future some form of electronic publication, for example on CD-ROM, could be explored. There is also a collection of scanning EM photographs illustrating the development of different organ systems (for example, the palate, the eye, the limbs). These would be