

Human Genetics. BY DANIEL L. HARTL. London: Harper & Row. 1983. 605 pages.
£10.50. ISBN 0 06 350334 4.

Human Heredity. BY ELDON J. GARDNER. Chichester: John Wiley. 1983. 435 pages.
£19.95. ISBN 0 4710837 63.

Recent years have seen considerable advances in our knowledge of human genetics and variation. It has become possible to study the detailed structure of human chromosomes, establish the biochemical basis of many genetic diseases and even analyse the fine structure of human genes themselves. Moreover, many of these developments have found very important practical applications in the fields of genetic counselling and prenatal diagnosis. However, all these advances have occurred very rapidly and the subject therefore presents a considerable challenge to teachers as well as to writers of textbooks. These two texts have succeeded but in somewhat different ways.

Both cover what might be termed basic and well-established core knowledge: cell division, the structure and function of DNA, abnormalities of chromosome structure and number, Mendelian inheritance, quantitative and population genetics. However, in Hartl much of the emphasis in the remainder of the book is on molecular genetics, including recombinant DNA technology. His text is sufficiently modern in approach as to include interesting discussions of split genes, overlapping genes, transposons, pseudogenes and oncogenes. But the applications of the subject in regard to genetic counselling and prenatal diagnosis are dealt with only briefly and somewhat superficially. Gardner's book on the other hand is far more concerned with the applied aspects of the subject and in fact a large proportion of the text might be termed medical genetics.

Hartl's text is extremely well organized and has many features which will make it attractive to teachers. Each chapter concludes with a brief and helpful summary, a list of 'words to know', a number of problems (with detailed answers) and several well-chosen references for further reading. In Gardner's text each chapter also concludes with a summary, references for further reading and a number of questions, but, disappointingly, answers are provided only for numerical problems. Both texts have glossaries and very full indexes.

Of the two, Gardner's is more easily read, but perhaps less factual than Hartl's. Both are very well produced and will find favour with students and teachers alike. The choice must be a matter of personal preference and the needs of a particular course in Human Genetics, but both can be highly recommended.

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