growth variation, and (c) adopt a multidisciplinary approach to the study of human growth.

Three 'state of the art' lectures introduce the book. The first contribution by Professor Tanner entitled 'Growth as a mirror of the condition of society' is a fascinating historical review in addition to providing some provocative statements on the effect of present day unemployment on the health of the population. The other two lectures were concerned with childhood obesity and the relationship between nutrition/growth and longevity. The bulk of the book is a reproduction of the papers delivered during seven separate symposia. The symposium topics varied from biometrical aspects of growth (where an understanding of geometry and algebra is a distinct advantage), physiology of growth, growth and physical activity, to the pathology of growth. Certain topics such as the contribution by Wachtel on testicular differentiation (a clear exposé), Pollitt *et al* on anaemia and school achievement, and Girard *et al* on perinatal glucose homeostasis bear little relevance to the theme of the Congress, even when the multidisciplinary approach is considered. Other contributions worthy of mention include a practical and sensible approach to the child who is failing to thrive (Goldbloom) and a paper on chronogenetics in twins reared apart (Bronchard *et al*).

There is a wealth of data contained in this book for those interested in the wider issues of growth and its disorders. I do not know which professionals would benefit most from having a copy; certainly most geneticists will not regard this book as essential reading.

I A HUGHES

Human Chromosomes. Structure, Behaviour, Effects

By Eeva Therman. (Pp 313; figures+tables. DM 47.) New York: Springer-Verlag. 1986.

This book provides an introduction to human cytogenetics, enriched by references to animal and plant material where appropriate. Twenty-eight short chapters cover cell division, chromosome structure and behaviour, chromosome breakage, numerical and structural chromosome abnormality, chromosomes in cancer, and chromosome mapping. There are particularly useful chapters on allocyclic, double minutes, and HSRs, topics rarely mentioned in other standard texts. As might be expected there is a good chapter on structural abnormalities of the X chromosome.

It would be an excellent book for undergraduates specialising in genetics, for medical students with an interest in human cytogenetics, and as an occasional reference book for clinical geneticists. Practising human cytogeneticists preparing for professional examinations will also find it useful as a reminder of the wide range of cytogenetic methods and mechanisms.

Its great virtue is that it gives succinctly the basic information on each topic, with a set of references to reviews and books, which make it easy to supplement the basic information in each chapter. Its lucid style makes it very easy to read and the clear sub-headings in each chapter allow easy reference.

The book is well presented and adequately indexed. The quality of diagrams and illustrations is usually good, although it is unfortunate that some of the chromosome abnormalities, for example translocation and inversion, are only illustrated diagrammatically. Others come from unbanded material, for example, the pictures of chromosome 5 deletions, and some, such as the cases of trisomy 13 and trisomy 8, show only poorly reproduced Q banding.

It is reasonably priced at 47 DM (about £15 at current exchange rates) and there is enough that is new, in this second edition, to make this book a good buy even for those who already have the first edition.

P COOKE

Human Cytogenetics: A Practical Approach

Edited by D E Rooney and B H Czepulkowski. (Pp 232; figures+tables. £15.50.) Oxford: IRL Press, 1986.

This book, as the title implies, deals primarily with the methodology of human cytogenetics, but includes sufficient theory for the reader to understand the basic principles upon which the techniques are based. The volume is probably unique in containing protocols for nearly all the techniques encountered in clinical cytogenetics laboratories and some from more specialised areas.

Chapters 1, 2, 3, and 5 describe a variety of culture and harvest techniques for lymphocytes, amniotic fluid cells, chorionic villi, fibroblasts, and bone marrow and other tissues from human malignancies, together with a wide range of staining methods. Chapter 4 differs conspicuously in addressing the rather more theoretical and less easily defined topic of 'analysis and interpretation'. On the whole, this chapter is well balanced and informative,