karyotype (Giemsa banded) (Figure 11.4) exhibits few bands and does not reflect the standard of banding achieved today. However, the rest of the book is well illustrated.

This is a very readable, accurate and up-to-date book which I highly recommend.

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Genetics of microbes (2nd Edition). Brian N. Bainbridge. Blackie and Son, Glasgow. 1986. Pp. x + 214. Price £25.00 HB, £11.95 PB.
ISBN 0 216 92002 7 PB, 0 216 92001 9 HB.

Brian W. Bainbridge has undertaken a task which most of us would consider impossible, *i.e.*, to produce a compact and comprehensive introduction to Microbial Genetics in ≈200 pages. In his first edition he achieved a remarkable coverage of the subject in only 193 pages and in the 2nd edition this has grown to only 214 pages. Frankly, I think that the strain of limited space is starting to show. Achieving a balance between an adequate coverage of the basis of microbial genetics and new developments in the molecular aspects of the subject has inevitably led to some sections receiving only a rather superficial coverage.

Brian Bainbridge writes in a clear easily comprehended style and he provides useful and economically drawn diagrams which add to the clarity of his text. His figures demonstrate that clarity can still be achieved in black and white drawings, without the confusion sometimes seen in the more picturesque use of colour in many current texts. The work he describes in the individual chapters is supported by adequate references for an introductory text and he provides useful indications of areas of both future development and deficiency in our knowledge.

In the 2nd edition, Brian Bainbridge has extensively revised some of the chapters, particularly those involving recombinant DNA technology and others are identical to the 1st edition. I think it is a pity that the opportunity wasn't taken to revise the whole text, as it still describes trisomy in humans as the "mongol" condition and there are a few figures that frankly waste space.

This text provides a useful introduction to the genetics of a variety of microbes for undergraduates in Biology and for the non-specialist interested in a quick and convenient coverage of a rapidly developing field.

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The consequences of chromosome imbalance, principles, mechanisms and models. Charles J. Epstein. Cambridge University Press, Cambridge. 1986. Pp. xxxi + 486. Price £45.00, $59.50 US.
ISBN 0 521 25464 7.

Since the introduction of chromosome banding systems in the early 1970s, we have seen dramatic advances in clinical cytogenetics and the establishment of the "new chromosome syndromes". The range and combination of possible duplications and deletions of chromosomal segments is almost endless, and to attempt to organise what we already know about them, and draw rational conclusions as to the consequence of chromosome imbalance, would be a task far too daunting for most to attempt. To have explored the subject in as great a depth as Professor Epstein has done, and to have presented such a lucid account of the analysis of this data, is indeed a remarkable achievement.

There is no doubt in my mind that Professor Epstein's success is due very largely to the meticulous way in which he keeps the reader informed of what he is about to analyse or discuss, and how he is going to set about tackling the subject. At the same time, I found the style informal and relaxed. This is not to say that this is an "easy read"—there is much to digest, but unlike many "meaty" books, I found myself wanting to read more.

The book is divided into six parts. Following an introduction, the second part discusses the clinical observations in relation to a range of aneuploid types. In the third part, Professor Epstein considers mechanisms by which imbalance of genes can lead to changes of phenotype. The fourth part of the book looks at the experimental systems for the study of mammalian and human aneuploidy; while the penultimate section is devoted to a consideration of trisomy 21, monosomy *X* and aneuploidy associated with cancer. In the final part, Professor Epstein reflects on the conclusions that may be drawn from the preceding discussions.

The bibliography is full, and in addition to a useful glossary of clinical terms, there is also an appendix showing standard human and mouse ideograms. The publishers have contributed to the excellence of the book, in that the general layout is pleasing. The only slight reservations that I have, concern the illustrations. The line drawings are very clear, but the few half tone plates that are included, are rather grey, and tend to detract from the overall appearance of the book. I also felt that in redrawing the ideograms for chromosomes 11 and 13 on page 48, the current standard band nomenclature should have been used.

Leaving aside these very minor criticisms, this is a very good book that should appeal not only to cytogeneticists and clinicians with an interest in genetics, but also to a much wider spectrum of readers in the field of biology and medicine.

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