taken by experts over the heads of those directly concerned? The problem has the distasteful aroma of the 'job or health' threat, but must be solved.

But this discussion would demand a different Banbury group of experts and laymen. No doubt, the series will continue.

PER OFTEDAL,
University of Oslo,
Division of General Genetics,
Box 1031 Blindern,
0315 Oslo 3,
Norway

Genetics in Clinical Oncology. Edited by R. S. K. CHAGANTI and J. L. GERMAN. Oxford University Press. 1985 280 pages £35.00. ISBN 0 19 503609 3

The preface tells us that this book is aimed at the clinicians who take care of cancer patients. The chapters are contributed by the participating teachers of courses given in New York to help physicians appreciate the genetic aspects of cancer and so enable them to provide affected patients and their families with a better quality of medicine. In fact, the book works very well the other way round as well. As a geneticist working on one type of childhood tumour, I found much food for thought and useful, surprisingly up-to-date, references in several chapters. Obviously, fast-moving fields such as oncogenes are impossible to cover in multi-author books, which always have a long gestation period. Despite this, the chapter on 'viral and cellular oncogenes in cancer etiology' gives a solid introduction from which the reader can launch into the sea of recent research papers. Alas, clinical relevance has not yet been pinpointed for the observations that in some leukaemias and lymphomas activation of dominant oncogenes can be demonstrated and even followed by karyotypic analysis. This point is clearly made in the later chapters. The clinical value of the cytogenetic observations has to be confined to prognosis assessment for which much statistical evidence has been collected.

The multi-stage development of malignancy is discussed in different contexts throughout the book and the reader will eventually emerge with a fair overview. However, the discussion in the first chapter of the various models for genetic susceptibility to cancer could be better structured. It would be improved by distinguishing more clearly the variety of postulated mechanisms:

(1) Increased susceptibility to mutagenic agents due to (*a*) DNA repair problems, (*b*) increased likelihood of encountering mutagens because of allelic differences in enzymic detoxification or potentiation systems.

(2) Dominant predisposition to specific malignancies where a pre-existing heritable mutation in one gene increases the likelihood of overt cancer dramatically. (*a*) by mutation of the second allele at the same locus, (*b*) by further genetic change at a different locus.

The detailed genetics of the various types of cancer predisposition are confusing. It may take the reader some time to understand that retinoblastoma and Wilms' tumour can be found in both the dominant and the recessive categories. The information is, however, there. On careful reading of several chapters it becomes clear that there is a dominant predisposition to these embryonal tumours. Emergence of the tumour is associated with homozygous loss of function mutations which lead to uncontrolled proliferation. The kinetics of presentation of these childhood malignancies are consistent with a two-hit hypothesis for tumour evolution.

Throughout the text suitable warnings are sounded about some possible pitfalls, such as likely genetic heterogeneity in apparently similar cancers segregating in different families. Another worthwhile point made to research workers is that many of the cancer predispositions, such as the chromosome breakage syndromes or xeroderma pigmentosum, are numerically very rare but may help elucidate important steps in tumorigenesis.

The biochemical basis of even the strongest predispositions (e.g. retinoblastoma, Wilms' tumour) still remains to be identified. The prospects for defining the less-clearcut genetic variability which must exist in the family cancer syndromes (breast and colon cancers) must be correspondingly more distant. The chapters which deal with the clinical management of families with genetical predispositions to cancer are very well written and offer useful advice at practical and ethical levels, not forgetting even the emotional problems which the disclosure of cancer-proneness can bring. One author boldly states that surveillance in such families is of no proven value, and if it is to be undertaken this should be done in a coordinated manner so that its effectiveness can eventually be assessed. One comment, dear to the heart of a non-clinical scientist, is that physicians should arrange links between families being counselled and scientists with an academic interest in the disease. I hope all the clinicians from whom I want to receive clinical materials and information on patients read this book.

VERONICA VAN HEYNINGEN,
MRC Clinical and Population Cytogenetics Unit,
Western General Hospital,
Crewe Road,
Edinburgh EH4 2XU

Advances in Gene Technology: Molecular Biology of the Endocrine System. Edited by D. PUETT, F. AHMAD, S. BLACK, D. M. LOPEZ, M. H. MELNER, W. A. SCOTT AND W. J. WHELAN. Cambridge University Press. 1986. £27.5. ISBN 0 521 32685 3.

This book is nothing but a series of abstracts of the papers given at the 18th Miami Winter Symposium in February 1986. All are reproduced from camera-ready copy, and one must give credit to the International