impression is that Dr Young thoroughly enjoyed constructing this book and his pleasure is transmitted to the reader.

What other subjects might be included under the title? There are sections on linkage analysis, linkage disequilibrium, linkage heterogeneity, metabolic interference, imprinting, mitotic crossing over, and mitochondrial inheritance, all growing points of genetics. I was surprised by a chapter on balanced chromosome rearrangements and an appendix on prometaphase chromosome lengths and considered that the excellent account of empirical recurrences risks for chromosomal rearrangements was more useful than efforts to estimate risks through the sizes of the unbalanced chromosome progeny that might be produced.

There is no doubt that this will be a popular book because it gives confidence and satisfaction to its readers. It will be valuable to doctors on the fringe of genetics, to nurses, and to other members of a clinical genetics unit. However, clinical geneticists should not consider that this 'introduction' absolves them from the need to study texts that consider linkage, heterogeneity, and recombination in more depth.

SARAH BUNDEY

The Identification of the CF (Cystic Fibrosis) Gene: Recent Progress and New Research Strategies. Ed L C Tsui, G Romeo, R Greger, S Gorini. (Pp 409; $92.50.) New York: Plenum Press. 1991.

In September 1989 three papers appeared in *Science* reporting the cloning of the CF gene. They included a description of the putative encoded protein product, the cystic fibrosis transmembrane conductance regulator (CFTR), as well as the fact that some 70% of CF chromosomes carried a mutant allele with a specific three base pair deletion (ΔF508). This represented the first example of positional cloning (or reverse genetic cloning) of an autosomal gene, without recourse to assistance from a chromosomal aberration and without knowledge of the nature or even the tissue distribution of the gene product. As such it was a considerable scientific achievement and finally put paid to any residual doubts that might have existed about the powers of 'new genetic' technology. It is now quite acceptable to assert that any gene responsible for a mendelian disorder, or major susceptibility gene in a multifactorial disorder, can be cloned by similar methods.

Seven months after the *Science* papers appeared, a conference on CF was held in Sestri Levante, the proceedings of which are published in this book. The conference was organised by Giovanni Romeo, whose own conclusion from pedigree analysis that CF was a single locus disorder predated the establishment of the first genetic linkage in 1985. Most of the major groups who had participated in various mapping and cloning consortia were represented, as were the equally important groups who had pioneered the investigation of ion transport phenomena in appropriate CF cells. As Francis Collins recently remarked, "until the cloning of the CF gene the worlds of molecular biologists and cellular physiologists were in collision; now they are in fruitful collusion".

I would normally view the publication of conference proceedings as an unnecessary extra burden on the stretched resources of medical libraries. In this case an exception can be made. The cloning of the CF gene was of such importance to the world of medical genetics that some record of how it was done and what it is likely to mean is appropriate. This book is a very adequate tribute to the extraordinary collaborations that made this event possible.

D J H BROCK

Catalog of Chromosome Aberrations in Cancer. 4th ed. Felix Mitelman. (Pp 2056; $250.00.) New York: John Wiley. 1991.

This catalogue is a vital reference for all cytogeneticists and geneticists working in the field of oncology. The fourth edition comprises 14 141 cases collected from 3496 references. The dramatic increase in data since the publishing of the first volumes has required the information now to be published in two parts.

The major difference between this and the previous three editions is that data on unpublished cases have been excluded. This is because of the much larger amount of published information now available.

The overall format remains the same as the previous editions, providing karyotypes, morphological classification of the neoplastic condition, tumour site, and references. Molecular studies performed on cancer associated chromosome aberrations are presented at the end of each section. The morphological diagnoses have been considerably extended and are now presented in a more logical order which makes the retrieval of information on specific tumour types easier.

An overview of the information on the database is presented in relation to lists of journals from which the information was retrieved and the number of cases within the different disease entities. Precise details on how to use the Catalog are also given.

These volumes provide the cytogeneticist and geneticist with a rapid and easy to use comprehensive review of publications for all previously reported chromosome abnormalities in cancer. They provide vital information on the importance of each abnormality in relation to disease type for use in both research and service laboratories.

CHRISTINE J HARRISON

Genes, Brain and Behavior. Ed Paul R McHugh, Victor A McKusick. (Pp 251; $119.00.) New York: Raven Press. 1990.

This book promises much. It is edited by an eminent psychiatrist and a famous medical geneticist. Most of the contributors of the 16 chapters are well known for important contributions in their fields and the book is attractively produced. It is disappointing, therefore, that it does not quite live up to expectations. The reason for this is probably because the editors have attempted a nearly impossible task for, as they say in the first sentence of their preface, their aim has been to produce a "course of instruction and a forum for presentation of recent findings". Attempting to sit upon both these stools simultaneously is a hazardous exercise for all but those with the most impeccable sense of balance. Here there is more than an occasional wobble.

The book begins with four chapters on basic genetics, the most interesting and useful of which for readers who already have a background in the subject is a historical survey of advances in medical genetics over the past 30 years by McKusick. However, most of the content of this volume consists of 10 chapters focusing on particular psychiatric or neurological disorders. In the middle of these are two chapters on topics of considerable interest and relevance but where the amount of space allotted is hardly appropriate to the theme of 'brain and behaviour'.

Mitochondrial genes get 20 pages and the whole of behavioural genetics is squeezed into just 16. Although individually most of the chapters are of high quality there is a fair amount of variation in the levels at which they are pitched. Presumably in an attempt to maintain equilibrium between technicality and the general readers' needs, the editors have asked all authors to produce a brief glossary of genetic terms at the end of each chapter. Inevitably these definitions are terse, sometimes approximate, and very occasionally downright misleading.

In its favour this book does contain much useful information and conveys much of the excitement of new developments in a rapidly expanding field where difficult problems are becoming tractable because of the availability of new techniques. However, in attempting to cover recent advances and at the same time provide the elements of a basic introductory text, the editors have failed in their aim of producing "an essential resource for all neurologists, psychiatrists, and neuroscientists".

PETER McGUFFIN

Genome Analysis. Volume 1. Genetic and Physical Mapping. Ed K E Davies, S M Tilghman. (Pp 189.) New York: Cold Spring Harbor Laboratory Press. 1991.

The average clinical geneticist and even their molecular cousins may initially be slightly confused by some of the terminology in this book. For example, they will find that the probant is not a distant relative of a patient coming for counselling, as they might have guessed, but the component, in a hybridisation, which is fixed to a solid support. In other words, this is a serious book of techniques and protocols for some of the most advanced mapping technologies currently available, but there are also some examples for the clinical and molecular geneticist which are likely to revolutionise their trades over the next few years. Volume 1 of the series *Genome Analysis* is devoted to Genetic and Physical Mapping. The topics covered are fluorescence in situ hybridisation, with particular reference to nuclear organisation, hybridisation finger printing, yeast artificial chromosomes, germline deletion mutations in the mouse, and DNA polymorphism based on length variations in simple sequence tandem repeats.

The chapter on simple sequence tandem repeats, concentrating on (dC-dA)n.(dG-dT)n polymorphisms, is written by James L Weber, one of the originators of the analysis of this type of polymorphism. The chapter can be thoroughly recommended for the excellent mix of theoretical background, practicalities, and useful examples.

The chapter on Yeast Artificial Chromosomes by Philip Hieter and colleagues is