in a discussion of the prognosis of cystic fibrosis, the example quoted of athleticism in a patient with Schwachman's disease "a disease similar to CF" is misleading. In the chapter on multifactorial inheritance the concept of heritability is repeatedly invoked without any explanation of its precise meaning. On page 106, a high heritability is taken to indicate resistance of a trait to environmental manipulations; however, a trait with 100% heritability may be entirely prevented by new environments which were not operating when the heritability was estimated. On pages 172 and 173, conflicting patterns of multifactorial inheritance are presented without explanation. On the one hand, "The offspring of two very short persons should be taller than both their parents" because of "Galton's law of regression towards the mean", but on the next page, "the body build indices of the progeny... are exactly intermediate between those of their parents" indicating "multigenic inheritance". Both statements could be true, but without additional explanation this could be puzzling.

In conclusion, this is a book to be read straight through by newcomers to genetic counselling who have some knowledge of medicine. They will find many useful insights and suggestions for further reading, but they may need guidance in places from a more experienced colleague.

N R DENNIS

Genetic Engineering 2

Edited by Robert Williamson. (Pp xii+204; figures+tables. £9.80, \$24.00.) London, New York: Academic Press. 1981.

Genetic Engineering 1 (reviewed in the April 1982 issue) set a high standard for this series, with substantial up to date contributions from leading researchers in the field. *Genetic Engineering 2* is even better.

The contributions in both books are sufficiently detailed to be useful to scientists actively involved in recombinant DNA techniques at the bench, but it would be wrong to imagine that these scientists are the only people who would benefit from reading these books. The present reviewer is one of a large and growing number of people who, although not involved at the bench, is nevertheless concerned with the application of recombinant DNA techniques in his own particular field. For these people *Genetic Engineering 2* makes a better introduction than book 1, for the former starts with an excellent 40 page paper on 'Recent Studies of Gene Evolution using Recombinant DNA' by Dr Jeffreys. This sets the scene perfectly for an 80 page account on the

'Use of Genomic Libraries for the Isolation and Study of Eukaryotic Genes' by Dahl, Flavell, and Grosveld. These two papers, together with Dr Malcolm's discussion of the use of restriction enzymes (the starting point for the DNA revolution), provide an admirable way into the field for those who have grasped the general principles but are frustrated by the lack of clear account of the practical details. The book finishes with a paper on 'Gene Cloning in Yeast' by Dr Beggs.

This book is strongly recommended to anyone with a simple basic knowledge of molecular biology who has an interest in genetic engineering and its application. I can't wait for book 3!

M E PEMBREY

DNA Repair and Mutagenesis in Eukaryotes

Basic Life Sciences vol 15. Edited by W M Generoso, M D Shelby, and F J de Serres. (Pp xii+458; figures+tables. \$49.50). New York: Plenum Press. 1980.

This volume consists of the proceedings of a symposium on 'DNA Repair and Mutagenesis in Eukaryotes', which took place in Atlanta in June 1979 under the sponsorship of the National Institute of Environmental Health Sciences. It contains 31 contributions, divided into six sections. The first of these sections sets the stage with three reviews: one by Kimball on the relationship between repair processes and mutation induction in bacteria; one by Straus *et al* on the modification, by cellular systems, of the response to chemical mutagens (this mainly reports recent work from the authors' laboratory); and, finally, one by Setlow on DNA repair pathways, with emphasis on excision repair. The other five sections deal, in order, with data on lower eukaryotes, *Drosophila*, mammalian somatic cells, mouse germ cells, and human health hazard assessment. Each one of these sections ends with a summary chapter, which guides the reader through the material of the book.

The second section is subdivided into two parts. The first consists of three chapters by Schroeder and Olson, Fraser *et al*, and de Serres on the characteristics of mutants of *Neurospora crassa* sensitive to mutagens, and the effects of such inherited mutations on mutation induction. The second has five contributions (including the summary chapter by Brockman) on *Saccharomyces cerevisiae*. Here papers by Lemontt, Reynolds and Friedberg, Prakash and Prakash, and von Borstel and Hastings on DNA repair and mutagenesis reveal differences and similarities between such processes in bacteria and yeast.