Bennetzen and Walbot et al. discuss in considerable detail the regulation of the mutator transposable elements in maize.

My only criticism of the book is the apparent concentration on maize and the small crucifer Arabidopsis thaliana. In fact Somerville et al. go to some length to praise the use of Arabidopsis as a model system. I have always found barley an excellent plant for carrying out biochemical and genetical studies!

In conclusion, Michael Freeling should be congratulated on putting together such an excellent work in such a short time after the end of the conference. The book will be of value both to researchers in the field and to those of us who have to prepare lectures on the subject for final-year students.

P.J. Lea

Genetic Toxicology of the Diet

Edited by I. Knudsen

Alan R. Liss; New York, 1986

351 pages. £40

The most disappointing thing about this book is undoubtedly the fact that the title gives extraordinarily little idea of its contents. I had certainly expected to learn something about the genetic influence upon the toxicity of certain constituents in the diet. In the event, the book deals not at all with genetics — at least insofar as I understand it — though it does deal quite exhaustively with the toxicology of various food constituents. Insofar as some of these are concerned with carcinogenesis and mutagenesis they could, I suppose, be looked upon as effects of toxins in the diet upon genetic material.

The book is a collection of papers presented at a satellite symposium of the 4th International Conference on Environmental Mutagens held in Copenhagen in June 1985. The opening overview by Bruce Ames on ‘Food constituents as a source of mutagens, carcinogens, and anticarcinogens’ is excellent and sets the stage for what follows. Like the proverbial ‘curate’s egg’, it is inevitable that some of the contribution are better than others and of greater interest to some readers than to others.

The paper by Jensen on ‘Coffee and Cancer’ gives no encouragement to those who wish to find a strong association between the two. It does, in my opinion, give a prudent and up-to-date review of the current situation. This is typical of most of the articles in this book which presents a useful account of modern thought on the role of dietary factors in the pathogenesis of disease associated with distortion of genome.

The main topics covered are the presence of natural genotoxins in plant foods and beverages of plant origin; mutagens and carcinogens formed during preparation of food; mutagens formed in the gastrointestinal tract; dietary modifiers in carcinogenesis and mutagenesis; and finally five papers on diet and cancer based on epidemiological findings. I have no doubt that the sensationalists could find much fruitful ammunition in this book to launch a plethora of health scares but to most of us it will provide a ready source of useful information in the field of rapidly growing importance. This is not a book for the ‘soft’ nutritionists but for the hard-nosed research toxicologist.

The book itself has the appearance one has come to associate with symposium proceedings, the manuscripts for which are submitted in camera-ready copy. I am pleased to say that most of the presentations have acceptable eye appeal though some contributions are easier to read than others; as much because of their presentation as because of their content.

Vincent Marks
Pharmacology is one of the oldest of the medical sciences. For much of its history, however, pharmacology was concerned almost exclusively with pharmacodynamics, i.e. what drugs do to the body. [Continue Reading. View via Publisher]