

general recombination section in particular) have already appeared in very similar form in well known journals. The book will be very useful in the preparation of 3rd year undergraduate lectures for next year, but at the current asking price I cannot see it finding its way onto many bookshelves. The only solution seems to be to persuade your library to add it to their collection.

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GENE THERAPY—FACT AND FICTION. Edited by Theodore Friedmann. Cold Spring Harbor Laboratory, 1984. 131 pp, Glossary. Price: Paperback £5.95 (\$4.95).

This slim book is a record of a discussion meeting held in the Banbury Center at Cold Spring Harbor in 1982. In a departure from the usual form of conference proceedings, it contains no technical papers. Because of the widespread public interest in this field, the editor has attempted to produce a summary of the meeting in a form which can be read by a layman. Overall, the book is well written and mercifully free from the psychobabble which has begun to permeate much popular scientific writing of late. The participants were invited from the fields of molecular biology and clinical medicine, with a majority from North America. The aim of the organisers was to concentrate on the scientific issues and not to concern the meeting with the moral and ethical problems of this field, but almost inevitably in a meeting designed to allow the participants to let their hair down and have free-ranging discussions, the more philosophical aspects of this area of research eventually surfaced. By the end of the meeting some of the participants were voicing doubts about the wisdom of even trying to hold a meeting without considering the moral and ethical problems.

The contents fall neatly into three sections. The first sets the scene for the meeting and gives a short account of the Central Dogma to "provide the general reader with enough technical background and information" to understand what follows. I have misgivings about whether this will be of any use to lay readers unless they are already familiar with the concepts and merely need their memories refreshing. The total absence of any diagrams make it unlikely that anyone unfamiliar with basic molecular biology will be able to follow this exposition.

The middle part of the report contains edited highlights of the opening and closing sessions. Anticipation of this section had not filled me with enthusiasm but by the time I had finished reading it, I felt that it should have been longer. Even in the starkness of the printed word, the atmosphere of the meeting comes across clearly. Here is a discussion of the state of play and prospects for molecular manipulations in medicine by those most closely involved in the developments, stripped of the cloak of public relations posturing and the necessity for grant application hype. The discussions are refreshingly pessimistic about the prospects. Just by chance this book arrived on my desk in the same week that *Newsweek* published a special report "Medicine: A Brave New World" (March 5th, 1984). The contrast between what was being said at this meeting and what was being presented by the medical molecular biology publicity machine is very enlightening.

This contrast between the science and its public face continues into the final section of the book which considers in more detail the prospects for the control and treatment of inherited disorders. The editor points out the arrogance of believing that the new molecular technology will be any more successful than more conventional approaches. He discusses the areas in which molecular manipulations might be appropriate, those in which more conventional medical methods might be more applicable and also the possible dangers of attempting direct gene substitution. With the more recent publication of the effects of translocation on the expression of some oncogenes, his warnings on the dangers inherent in the random insertion of functional coding sequences into the genome are perhaps more apposite now than they were two years ago. Chapter 4 discloses a disconcerting tendency towards scientific imperialism which seems to have been growing among some members of the molecular genetics fraternity over the last few years. Having convinced themselves, and in some cases the holders of the research grant purse-strings, that all aspects of biology are subordinate to the biochemistry of the gene, moves towards the takeover of medicine are now under way. The argument runs something like this. Successful infection by an infectious agent, e.g., a virus or bacterium, requires that the agent recognises and exploits some component of host biochemistry. Since this component must ultimately be under the control of genes, all infectious disease is genetic in origin, Q.E.D.

The overt concentration on scientific issues has brought out some aspects of the new technology which will do little to please the many single issue pressure groups with which medical and biological research is afflicted at the moment. For example, the need for better animal models and the possibility that abortion could become more frequent as ante-natal diagnostic methods become more accurate.

Although I feel that this book will fail in its primary objective of reaching the general public, I do think that it would be a useful book for undergraduate teaching. It could form an invaluable basis for seminars or tutorials in genetics and pre-clinical courses, when the absence of any appreciable discussion of the moral and ethical issues presented by the new technology could be turned to advantage. Overall, this is a thought-provoking and attractively priced book.

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NATURAL SELECTION, HEREDITY AND EUGENICS. Edited with an introduction by J. H. Bennett. 1983. Oxford University Press. Pp. x + 306. Price: £17.50 H/B.

This book comprises a selection from R. A. Fisher's correspondence, especially with Leonard Darwin, on the topics given in the title. It is unfortunate that in many cases the writing of one of the correspondents (Fisher's for the earliest period) is unavailable. However, with the aid of the editor's very helpful notes, one can follow the correspondence without much difficulty. Also included are three of Fisher's reviews (one previously