strategies which may be used and already are being used to attempt to elucidate the aetiological basis of mental illness.

In summary, this is a book which those working in the field of psychiatric genetics will want to have in their departmental libraries and it will be of interest also to more general readers, whether they are primarily researchers or clinicians who have an interest in the intersection between molecular genetics and psychiatry.

PETER MCGUFFIN

In Situ Hybridisation: Application to Developmental Biology and Medicine. Society for Experimental Biology Seminar Series 40. Ed N Harris, D G Wilkinson. (Pp 288; £35.00) Cambridge: Cambridge University Press. 1990.

Reports of symposia are frequently characterised by the wide variation in style and approach taken by the authors of the different chapters, and by their rapid obsolescence. The first trait must be laid at the door of the editors for their inability to establish a consistent format. The second is the result of a system which inhibits scientists from discussing their most exciting data until they are published in a journal, and of the inevitable delays between the meeting and publication of the proceedings.

This volume was intended to be the proceedings of a symposium held during the meeting of the Society for Experimental Biology in Edinburgh in 1989. Most of the chapters are concerned with the application of *in situ* hybridisation to the study of gene expression in plant and animal systems, although the last three chapters do address the subject of the clinical application of the technique. There is little uniformity of either style or content in the chapters, for, while some include detailed laboratory protocols, others contain only an outline of the methodology, while yet others are little more than a superficial review of the field.

The first two chapters deal with the use of non-isotopic labels for *in situ* hybridisation. That by Coulton is a good, broad overview of the whole subject, with detailed protocols for most of the methods, but the chapter by Raap *et al* is a brief and very superficial survey. The next five chapters discuss aspects of *in situ* hybridisation to mRNA in various animal systems. Two of them (Giaid *et al* and Perry-O'Keefe *et al*) include detailed protocols, while that by Wilkinson has a brief outline of the methods used, and those by Angerer *et al* and Ingham *et al* are rather general reviews. The next four chapters discuss the application of *in situ* hybridisation to mRNA in plant systems. Each of these chapters includes some description of the methods used, but only in that by Wright and Greenland is there sufficient detail to be useful as a practical guide. This is a regrettable deficiency, for the problems facing newcomers to this area of the subject have little coverage in general publications. The final chapters are concerned with clinically relevant aspects of the technique. That by West describes its application to prenatal diagnosis, and includes detailed protocols, while the chapter by Herrington *et al* is a review of applications in pathology, and the last chapter (by Wells) is again more practical, though methods are only described in outline.

Overall, it is hard to say to whom this book would appeal. It has adequate reviews, and is therefore useful as an approach to publications in the field, but this is such a rapidly evolving area that these reviews are likely to be already outdated. In most cases the techniques are not described in sufficient detail for the book to be useful as a handbook, and the depth with which the subject is treated varies greatly from chapter to chapter. All in all it seems likely that this is the sort of book which will appear on departmental library shelves, be consulted by newcomers to the field for the first six months, and then rapidly forgotten. It is unlikely that many scientists will need their own copy.

JOHN R GOSDEN

Human Genetics: A Modern Synthesis. Gordon Edlin. Boston: Jones and Bartlett. 1990.

This textbook has been designed primarily for use by those without a scientific background but with a wish to understand more about genetics. The author has considerable experience in teaching courses with this aim and his book is structured along the lines of a series of 'lectures' (20 chapters of factual information) and 'seminars' (brief discussions of contentious issues). It also attempts to provide the reader with a 'tutor' in the form of glossaries for each chapter, suggestions for further reading, and a series of questions and answers and possible essay topics.

The breadth of issues addressed is impressive, ranging through classical genetics, relevant basic organic and biochemistry, bacterial and eukaryotic genetics, application in biotechnology and medicine, evolution, and ethics. In attempting to cover so much ground there has perhaps been a tendency for outlines of one or two basic principles to become excessively pruned while other areas are covered in detail which may be excessive. For example, the chapter on human hereditary diseases could easily, I feel, leave the genetics novice failing to grasp *how* linked markers are used diagnostically despite a fairly detailed discussion of the probe G8 and Huntington's disease.

A better understanding of genetics by the whole population is going to be essential as biotechnology pervades our lives to an ever increasing extent. There is a real need for an uncluttered, intelligible guide to this area which can appear daunting and even menacing to the outsider. Until understanding is more widespread, the ways in which this new technology is applied will be decided on behalf of the population rather than by consensus. The anxieties increasingly but belatedly expressed in relation to environmental issues are a prime example of the consequences of selling technology to enthusiastic but naive consumers. This book is not faultless, but the more of the target readership it reaches the better.

JULIAN SAMPSON