Book reviews

Warr, J.R.: Genetic Engineering in Higher Organisms. Studies in Biology No. 162. London: Edward Arnold 1984. 58 pp., several figs. and tabs. Soft bound £ 2.85.

As described by the author in the preface, genetic engineering first concentrated on bacteria and their viruses because they are technically much easier to handle than higher animals or plants. The aim of this book is to present recent developments in the attempt to apply microbial genetics techniques to the genetics of humans, higher animals and higher plants, higher organisms in which society as a whole is particularly interested.

For genetic engineering, exchange of foreign DNA or DNA fragments is essential and this is where most of the problems arise in research with higher organisms. Suitable vectors for introducing foreign DNA into mammalian cells are available already and are systematically described by the author, who foresees a period of progress for mammalian cells equivalent to that for bacterial cells a few years ago. On the other hand, there are still a lot of problems to be dealt with in finding suitable vectors for introducing foreign DNA into plant cells and this lack of progress is the main reason why this book gives only a very small survey of the work so far done. Nevertheless, the author foresees, when the problems have been solved, a period of progress identical to the one described above for bacterial and mammalian cells.

The aim of the booklets "Studies in Biology" is to provide overviews of biological topics so that teachers and students can learn about significant up-to-date developments; that is what the editor has certainly succeeded in doing with this book.

M. M. A. van Herpen, Nijmegen

De Serres, F.J.; Sheridan, W. (eds.): Utilization of Mammalian Specific Locus Studies in Hazard Evaluation and Estimation of Genetic Risks. Environmental Science Research, Vol. 28. New York, London: Plenum Press 1983. 341 pp.

Written by leading investigators this timely review of a special field in mutation research reflects the strong recent interest in specific locus mutations in mammals and their use in hazard evaluation and estimation of genetic risk.

The book focuses on a variety of topics ranging from somatic mutations to germ cell mutations and the detection of specific locus mutations in mammals. All in all, twenty papers explore the phenomenon of mutations induced by chemicals and other environmental agents as it occurs in mammals and its risk for further generations. Comparing the different systems and the different papers, this book emphasizes the importance of whole animal studies for the extrapolation of animal data to humans. Throughout, this volume, which contains the proceedings of a workshop held in 1982, emphasizes current research and interpretations and provides essential background material for further research.

J. Schöneich, Gatersleben