Book reviews

Satir, B.H. (ed.): Modern Cell Biology, Vol. 3. New York: Alan R. Liss 1984. ix+314 pp., several figs. and tabs. Hard bound £ 38.00.

The boundary between cell biology and such other modern sciences as biochemistry, biophysics, immunology, developmental biology, molecular biology, etc. is becoming more and more blurred. The book "Modern Cell Biology", volume 3, presents readers with some of the newer aspects of cell biology which have been greatly advanced in the recent years. It is an exciting book to read and one can only be impressed by its presentation of new concepts, modern techniques and fruitful results in cell biology. Written by researchers expert in their fields this book contains 7 review articles: the export of protein in bacteria, high molecular weight microtubule associated proteins (MAPs); the structure and function of the mammalian zona pellucida – a unique extracellular matrix formed during the growth and maturation of mammalian oocytes; molecular diagnostics of human genetic diseases, gap junction and cell-to-cell coupling in endocrine glands; signal processing in *Dictyostelium discoideum* slugs; and RNA splicing and the involvement of small ribonucleoproteins. The articles reflect the current states of the fields of study, introduce the application of new methods to cell biological problems, present some personal perspectives and raise pertinent questions about future directions. For instance, in the chapter on the export of protein, the author not only reviewed past studies but also proposed a new model to elaborate the mechanism of protein export in bacteria. At this moment the advancement of modern sciences is extremely fast and it may happen that just after the completion of a review some new significant investigations could be reported. For example, a great advance on the study of the mechanism of RNA splicing has been made very recently which is not included in the book. Nevertheless, this book is very up-to-date, and contains a wealth of information. It will interest all researchers and postgraduates involved in the field.

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Lurquin, P.F.; Kleinhofs, A. (eds.): Genetic Engineering in Eukaryotes. New York, London: Plenum Press 1983. ix+282 pp., several figs. and tabs. Hard bound $ 45.00.

The editors of these proceedings acknowledge that this NATO Advanced Study Institute held July/August 1982 and thus this book are both biased in favour of the plant kingdom. This is true in terms of the numbers of contributions. The value of this book is greatest for those working in the field of plant cell genetic manipulations. Plant work has been severely hampered by the lack of a transformation system comparable to those in bacterial, yeast and animal cell systems. These papers give a rapid introduction to the best in genetic engineering in the fungi, yeast and animal cells. This introduction, though by no means comprehensive, is nevertheless a useful background against which to evaluate the essential elements and common parameters of workable genetic engineering.

Inevitably in a rapidly moving field, symposia proceedings such as this are somewhat dated by the time of their appearance. Nevertheless I found this collection useful and stimulating. The contributions are generally concise and sometimes crisp allowing the reader to rapidly grasp the advances that have been made and the developments still required. Most importantly the book should stimulate its readers to formulate productive areas of future work.

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