Book Reviews

Pollack, R. (ed.): Readings in Mammalian Cell Culture. 2nd Ed. New York: Cold Spring Harbor 1981. 718 pp.

During the five years that have passed between the first and second edition of this book, information about mammalian cell culture has increased considerably. In comparison with the first edition (1975, 12 papers) the second edition of "Readings in mammalian cell culture" is a very enlarged collection of 91 papers. To give full space to some major developments in cell culture, the author has left out some papers of the first edition in order to make room for papers that describe powerful new techniques with which to clone, transfer and localize genes.

All chapters (1: Growth of cells in culture; 2: Retention of differentiated properties; 3: Transformations; 4: Mechanisms of growth control; 5: Tumorigenicity and metastasis; 6: The cell cycle and DNA replication; 7: Chromosomes, chromatin, and gene expression; 8: Somatic cell genetics; 9: Transfer of chromosomes and genes; 10: Cell membrane organisation and function; 11: Cytoplasmic organisation) contain both earlier papers that the author has found serve best as teaching aids and later papers which reflect some of the newest developments in the subject being considered. Every chapter begins with a short introduction by the editor of the book.

The book is well produced and the tables, diagrams and photos are clear.

Cellular and molecular biologists, immunobiologists, virologists, oncologists and geneticists working in scientific and teaching field will find this volume most valuable.

M. Herrmann, Erfurt

Brenner, S.; Hartley, B.S.; Rodgers, P.J. (eds.): New Horizons in Industrial Microbiology. A Royal Society Discussion. London: The Royal Society 1980. 152 pp., 39 figs., 48 tables. Hard bound £ 16.35.

In his introductory remarks Hartley pointed out that in a situation in which dramatic changes in biotechnology and rapid shifts in commercial certitudes coincide, the meeting provided the opportunity for members of government, the academic world and industry to articulate their problems.

Murray summarized the prospects for the application of genetic engineering in industrial microbiology. At present medical applications are favourized and it is perhaps in this area that the most immediate benefits of genetic engineering are to be obtained. Other lectures with genetic backgrounds were given by Hopwood (antibiotic production) and P.H. Clarke (biodegradation). Progress in antibiotic production would be greatly stimulated by screening random recombinants between divergent-yielding strains. Further excellent lectures were given on immobilized cells and enzymes (Dunnill), enzyme inhibitors (Schindler), alcohol production (Righelato), microbial energetics (Haddock), single cell protein (Smith), biologically active peptides (Hughes) and nitrogen fixation (Postgate). A personal view of the way in which government can participate in the development of industrial microbiology was given by Davies. Papers and numerous remarks during the discussion reflect the complex relations between government, industry and academy in the field of biotechnology in the U.K.

R. Borriss, Gatersleben