

Preface

"Animal Cell Biotechnology" is directed towards two groups of people. Those entering the field for the first time will find many details about how to set up and operate cell cultures in a variety of ways and at scales ranging between 0.001 and 10,000 litres. Others who are already engaged in the area will find that the comprehensive and detailed coverage of the selected topics written by experts in the various subjects will provide them with a well-referenced and well-indexed state-of-the-art report. This will enable them to expand their horizons further and to appreciate more fully those aspects of the subject with which they have not yet become deeply involved. It will also provide team leaders with the overview necessary to better coordinate and direct the various unit operations of manufacturing a product from animal cells in culture.

The contributing authors have been asked to assume that the reader will have been exposed at university or polytechnic level to two or more basic science subjects (mathematics, physics, chemistry and biology), although he/she may have qualified in the specialist disciplines of microbiology, chemical engineering, biochemistry, genetics, immunology or even biotechnology. In addition the writers have stressed, where appropriate, the underlying principles of the subject area and have provided many illustrations, diagrams, graphs and tables to present information which would otherwise take up much text and make for laborious reading. A balanced, thoughtful and fair assessment of alternative methods to achieve particular ends has been requested, yet in this burgeoning field the reader will have to contend with the clear enthusiasm of one or other of the various contributors. As editors, we are confident that there is a sufficient wealth of views for readers to have little difficulty in developing an appreciation of the strengths and weaknesses of alternative technologies and thereby be fortified in the choice of system for their specific application.

These volumes survey a new and as yet uncharted facet of biotechnology. They are designed both as an introduction and as an in-depth survey of the

present situation. In view of the exciting scientific achievements but disappointing practical results derived from trying to express mammalian genes in prokaryotic organisms and the new capabilities in the area of genetic engineering of animal cells, we can anticipate that animal cell biotechnology is likely to retain its place at the cutting edge of biotechnology for some time to come. We trust that these volumes will help with the realisation of that future.

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