Animal Cell Culture (Methods in Molecular Biology, Volume 5): Edited by J.W. Pollard and J.M. Walker; Humana Press; Clifton, New Jersey, 1990; xiv + 713 pages; £59.10

There is quite a shortage of specialised method-oriented books relating to animal cell culture, so that the publication of a volume such as this is a welcome event. The book contains 55 short ‘stand-alone’ chapters by experts in particular topics including basic culture techniques, culture of specific cell types (e.g. keratinocytes, lung, brain, thyroid, liver, muscle and kidney cells, and lymphocytes, haemopoietic cells and their precursors) and specific techniques including in situ hybridisation, flow cytometry, hybridoma technology and transfection. Animal Cell Culture therefore covers a wide range of areas but the choice of the specific topics by the Editors seems to have been a little arbitrary, so that even within the chosen areas the coverage is not comprehensive. The most serious criticism, from my point of view, is that in many of the chapters the references stop in the mid-1980s or earlier, and often important recent references are not included; it is difficult to understand the reason for this, since several of the chapters have recent references right up to 1989.

On a more positive note, the format is extremely clear and easy to follow; detailed practical information including recipes for solutions and valuable hints based on the authors’ experience is given. For example, Reid’s Chapter on ‘Defining Hormone and Matrix Requirements for Differentiated Epithelia’ has a very useful appendix on sources and storage.

This book will certainly be used in my laboratory. It partially fills the need for a cell culture manual covering details of specific techniques at a more advanced level than is possible in Ian Freshney’s very useful introductory practical manual Culture of Animal Cells - A Manual of Practical Technique (Alan R. Liss).

I would recommend it as a useful acquisition for science libraries and for laboratories very much involved in animal cell culture, but because of the outdated referencing in many chapters and the somewhat random choice of topics, it must be considered as one of the methods books to have at hand, rather than the essential laminar flow-side manual for every cell culture researcher. The Gold Standard in this regard, Kruse and Patterson’s Tissue Culture Methods and Applications (published by Academic Press in 1973 and therefore now a little out-dated) has yet to be equalled.

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