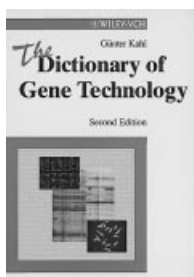


## Sequence Specifics

**Dictionary of Gene Technology.** 2nd Edition. By *Günther Kahl*. Wiley-VCH, Weinheim 2001. xv + 941 pp., hardcover € 159.00.—ISBN 3-527-30100-3

To anticipate the verdict right at the start: this book should be available within hand's reach for everyone who is enthusiastically involved with molecular biology and gene technology, whether as a student or a teacher. It should not be merely kept on the bedside table of those who have got into the habit of reading dictionaries as a way of getting to sleep.



In this updated second edition Günther Kahl has produced a dictionary in which one can find explanations of all but a very few of the rapidly growing number of abbreviations in this field. It is a dictionary in the best sense of the word—not the sort of encyclopedia in which one finds, for example, names of people and historical details. The user will consult this work to find out about a term or the principle of a reaction or technique and to gain an understanding of it, without having to read through a chapter of a textbook or several original papers. It contains over 6500 entries, sometimes with detailed explanations, supported by many clear and easily understandable figures, the whole being

a thoroughly comprehensive dictionary of gene technology.

But what actually is “gene technology”? Günther Kahl answers that question in a cross-reference to the entry “genetic engineering”: it is an in vitro methodology for altering the structure of genes or designing them, and for constructing chimeric genes. This technology includes both the transfer of genes into different organisms and the expression of genes within a new genetic context. Gene technology provides the methods used to investigate the structure and regulation of genes, and is the basis for a wide variety of industrial applications, for example in optimizing the performance of organisms used in biotechnological processes for the manufacture of chemicals or pharmaceuticals.

Accordingly, the scope of the entries in this dictionary not only includes the genetic and molecular biological fundamentals of gene technology but also covers a wide range of terms concerned with the technological application of that knowledge. The many cross-references form a comprehensive network enabling one to quickly find the explanation of a term. That is especially important because the actual entry does not always correspond to the everyday laboratory expression. Thus, for example, “error-prone PCR” is not listed, but an explanation is quickly found under “Polymerase chain reaction mutagenesis (PCR mutagenesis)”. It is pleasing to find entries for many research topics of current interest, such as “DNA chip technology”, “Gene library”, “Nanotechnology”, and “Single molecule sequencing”. However, key expressions that relate to the present heated public debate about gene technology and its new possibilities (e.g., stem cells derived from embryos) have not yet been included here. Thus it seems that a third edition of the work will be needed!

Further browsing through the dictionary reveals other positive features, in-

cluding the author's evident familiarity with practical details, as shown, for example, by entries such as “Eppendorf”, “Falcon plastic ware”, “Millipore filters”, “Mini-prep”, “Qiagen columns”, or “Parafilm”. Careful attention to detail and awareness of needs at the laboratory bench is also apparent in the appendix. For example, it contains a comprehensive list of all the data banks that are relevant to gene technology and are essential for anyone engaged in research on genes, proteins, and structures. However, although so much diligent work has gone into the preparation of this dictionary, the author Günther Kahl has kept a sense of humor: he has included (at least) three joke entries, one of which caused me to go immediately to the World Wide Web for more information, from which I discovered the motivation for that entry—a reward awaits the first to find it and give the correct answer!

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**Carbohydrates.** The Sweet Molecules of Life. By *Robert V. Stick*. Academic Press, London 2001. 265 pp., hardcover \$ 64.95.—ISBN 0-12-670960-2

This is a further addition to the succession of books on carbohydrate chemistry that have appeared in the last few years. It treats the main aspects of modern carbohydrates chemistry in a very condensed form, with particular emphasis on the synthesis of sugars and sac-



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