

This most up-to-date and comprehensive collection of 12,000 technical terms of the modern fields of genome research (*genomics*), gene expression technology (*transcriptomics*), and protein structure and function (*proteomics*) is the successor of the very successful long-seller and leading title "The Dictionary of Gene Technology".

This new edition appreciates a far-reaching diversification of the technical language of the three disciplines and tries to order the sometimes confusing usage of multiple synonyms, acronyms and laboratory jargons. It presents extensive explanations of the terms, frequently supported by illustrations, and provides multiple links to related terms of neighboring science fields such as genetics, molecular genetics, molecular medicine, biotechnology, nanotechnology, microbiology, biochemistry and biophysics. All the chemical formulas are professionally drawn in a uniform style, and most of the figures and schemes are custom-designed.

**The Dictionary of Genomics, Transcriptomics and Proteomics** will assist laypersons, students, journalists, officials, and experts alike to understand the meaning of most terms of the three continuously and vigorously expanding disciplines.



**Günter Kahl** is Professor for Plant Molecular Biology at the Biocenter of Johann Wolfgang Goethe-University of Frankfurt am Main, Germany. After gaining his Ph.D. in plant biochemistry, he spent two postdoctoral years at Michigan State University, East Lansing (USA), joining Professor Joe Varner and Professor James Bonner at the California Institute of Technology, Pasadena, California. His main research interests focus on

- **Gene Technology**, in particular the genetic and physical mapping as well as isolation and characterization of plant defence genes and their promoters, and the use of in vitro modified defence genes for the improvement of plant crops via gene transfer.
- **Genome Analysis**, in particular the development of molecular marker technologies and informative DNA markers for genomic fingerprinting, the establishment of genetic and physical maps, and the map-based cloning of agronomically important genes.
- **Gene Expression Profiling** of plant and animal tissues with expression microarrays and the patented high-throughput SuperSAGE technology. Development of expression markers and determination of expression phenotypes.

Due to the international nature of his work, Professor Kahl cooperates with a series of research institutions throughout Europe, Japan, the USA, Syria, India, Central and South America. Additionally, he is organizing a series of molecular marker courses in Austria, South America, Asia, Africa and the Middle East. He has served in expert missions for IAEA, FAO and UNESCO around the world.

Professor Kahl is the author of more than 250 scientific publications, and currently holds the CSO position at GenXPro GmbH, a company specializing in novel technologies in genomics and transcriptomics, located at the Frankfurt Innovation Centre for Biotechnology (FIZ), Frankfurt am Main, Germany.

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