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BOOK REVIEW

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## Gene Engineering<sup>1</sup>

(Shchelkunov, S. N., Siberian University Press, Novosibirsk, 2004, 496 p.)

This is the second edition of a monograph originally published in two parts in 1994 and 1997. The author significantly rearranged the text (in accordance with recent achievement in the field) and introduced color illustrations.

The monograph by S. N. Shchelkunov significantly differs from many handbooks on methods of gene engineering. In contrast to well-known handbook by Maniatis, Fritsch, and Sambrook (*Methods of Gene Engineering (Molecular Cloning)*, Mir, Moscow, 1984) this monograph does not contain detailed protocols of methods. The author gives comparative description of various approaches for solution of practical problems on DNA cloning. Each researcher can choose an optimal variant. With exception of the section "Methods of chemical-enzymatic synthesis of double stranded DNA fragments" written by the distinguished expert in chemical synthesis of oligonucleotides A. N. Sinyakov, the book has been written by one author in one style. This is undoubtedly an

advantage of this book compared with the two-volume handbook *DNA Cloning* and *New in DNA Cloning* (Davis, ed.) translated and published by Mir (Moscow) in 1988. (It should also be noted that both these translations are out of date now).

A lecture course on gene engineering given by S. N. Shchelkunov at Novosibirsk University for more than a quarter of a century represents the basis of this monograph, which consists of 19 chapters. The author sequentially considers various host-vector systems for *Escherichia coli*, bacteria of the genera *Bacillus*, *Streptococcus*, corinebacteria, yeast *Saccharomyces cerevisiae*, mammalian, and insect cells. Vector systems based on animal viruses are cataloged in detail. Separate chapters consider site-directed mutagenesis and protein engineering, antiviral vaccines, and transgenic plants and animals. Each chapter contains a list of references for further reading, which makes this monograph a valuable reference book.

The monograph should become a textbook for all specialists working in gene engineering. It is a very important book for subsequent development of biotechnology in our country and it is really a pity that the second edition was issued in only 2000 copies.

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<sup>1</sup> This book is available at Biblioglobus bookstore (Moscow), Moscow House of Books (Moscow), Top-kniga ([www.top-kniga.ru](http://www.top-kniga.ru)), and Kniga-Pochtoi (Russia).

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