DESCRIPTION

“... an excellent book... achieves all of its goals with style, clarity and completeness... You can see the power and possibilities of molecular genetics as you read...” –Human Genetics

“This volume hits an outstanding balance among readability, coverage, and detail.” –Biochemistry and Molecular Biology Education

Rapid advances in a collection of techniques referred to as gene technology, genetic engineering, recombinant DNA technology and gene cloning have pushed molecular biology to the forefront of the biological sciences. This new edition of a concise, well-written textbook introduces key techniques and concepts involved in cloning genes and in studying their expression and variation.

The book opens with a brief review of the basic concepts of molecular biology, before moving on to describe the key molecular methods and how they fit together. This ranges from the cloning and study of individual genes to the sequencing of whole genomes, and the analysis of genome-wide information. Finally, the book moves on to consider some of the applications of these techniques, in biotechnology, medicine and agriculture, as well as in research that is causing the current explosion of knowledge across the biological sciences.

*From Genes to Genomes: Concepts and Applications of DNA Technology, Second Edition* includes full two-colour design throughout. Specific changes for the new edition include:

- Strengthening of gene to genome theme
- Updating and reinforcing of material on proteomics, gene therapy and stem cells
• More eukaryotic/mammalian examples and less focus on bacteria

This textbook is must-have for all undergraduates studying intermediate molecular genetics within the biological and biomedical sciences. It is also of interest for researchers and all those needing to update their knowledge of this rapidly moving field.

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 ABOUT THE AUTHOR

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 NEW TO EDITION

• Strengthening of gene to genome theme

• Updating and reinforcing of material on proteomics, gene therapy and stem cells

• More eukaryotic/mammalian examples and less focus on bacteria

 FEATURES

• Provides students with a concise introduction to the rapidly moving world of molecular genetics

• Concise, well-written coverage of traditional and contemporary topics

• Includes full two-colour design throughout