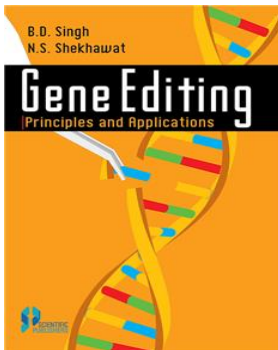


Gene Editing Principles and Applications

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Blurb

Gene or genome editing is barely two decades old, but its impact is palpable in every discipline of biological sciences, especially basic and applied biomedical researches. It enables a planned and precise alterations in genome sequences as well as controlled activation or repression of selected gene functions. Base editors based on CRISPR-Cas system were created a couple of years ago, and they permit permanent conversion of the single targeted base pair into another base pair. The potential of this powerful discipline are testified by its contributions in the form of gene therapies of otherwise intractable human diseases and improved crop varieties with novel traits.

The present book is designed to provide the basic principles of gene editing as well describe its realized and potential applications. The book targets biologists in general and geneticists, biomedical researchers and plant breeders in particular. It is hoped that it will be useful to post-graduate students, research scholars and research workers concerned with analyses of biological phenomena and development of strains with novel and useful traits

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