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Titolo	Somatic Genome Manipulation : Advances, Methods, and Applications / / edited by Xiu-Qing Li, Danielle J. Donnelly, Thomas G. Jensen
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ISBN	1-4939-2389-7
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Descrizione fisica	1 online resource (378 p.)
Disciplina	570 579.135 591.35 631.52 660.6
Soggetti	Plant breeding Animal genetics Microbial genetics Microbial genomics Plant Breeding/Biotechnology Animal Genetics and Genomics Microbial Genetics and Genomics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Drug and Gene Electrotransfer in Cancer Therapy -- Targeted Porcine Genome Engineering with TALENs -- Somatic Gene Therapy using Viral Vectors: theoretical and clinical implications in relation to treatment of genetic conditions in humans -- Nonviral Gene Therapy – The Challenge of Mobilizing DNA -- Human Stromal Stem Cell Therapy Using Gene Modified Cells -- Somatic Cell Nuclear Transfer and the Creation of Transgenic Large Animal Models -- Apomixis: The Asexual Formation of Seed -- Somatic Embryogenesis for Potato (Solanum tuberosum L.) Improvement -- Brassica Ogu-INRA Cytoplasmic Male Sterility: An Example of Successful Plant Somatic Fusion for Hybrid Seed Production -- Protoplast Technology in Genome Manipulation of Potato Through Somatic Cell Fusion -- Strategic RNA Silencing for Plant Viral

	Resistance -- Targeted Gene Mutation in Plants -- Mitochondrial Genetic Manipulation -- Laboratory Methods for Investigating Nuclear and Cytoplasmic Genomes and Transcriptome -- Bioinformatic approaches for analysis of gene direction, chromosome base composition, mRNA polyadenylation, and protein network.
Sommario/riassunto	This book brings together previously fragmented information on new technologies in somatic genome manipulation. These technologies are developing quickly across a broad range of disciplines affecting humans and animals, plants, and microorganisms. This book represents the first attempt to assemble updated reviews, detailed protocols, and far-reaching applications in somatic genome manipulation. The chapters are written by experts on the topic with ready-to-use protocols that were originally developed or adapted from the literature in their laboratories.