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Collana	Fungal Biology, , 2198-7777
Disciplina	570 571.8 571.92 581.35 631.52 660.6
Soggetti	Developmental biology Plant genetics Systems biology Plant breeding Plant pathology Developmental Biology Plant Genetics and Genomics Systems Biology Plant Breeding/Biotechnology Plant Pathology
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Anastomosis and Heterokaryon Formation -- Induction of the Sexual Cycle in Filamentous Ascomycetes -- What Have We Learned by Doing Transformations in Neurospora tetrasperma? -- Repeat-induced Point Mutation: A Fungal-specific, Endogenous Mutagenesis Process -- Calculating RIP Mutation in Fungal Genomes Using RIPCAL -- Fungal Transposable Elements -- In vivo Targeted Mutagenesis in Yeast using TaGTEAM -- RNA Silencing in Filamentous Fungi: from Basic to

Applications -- RNAi-mediated Gene Silencing in the Beta-lactam Producers Fungi *Penicillium chrysogenum* and *Acremonium chrysogenum* -- Controlling Fungal Gene Expression Using the Doxycycline-Dependent Tet-ON System in *Aspergillus fumigatus* -- Expanding the Repertoire of Selectable Markers for *Aspergillus* Transformation -- Arginase (*agaA*) as a Fungal Transformation Marker -- Transformation of Ascomycetous Fungi using Autonomously Replicating Vectors -- A Recyclable and Bidirectionally Selectable Marker System for Transformation of *Trichoderma* -- Split Marker-Mediated Transformation and Targeted Gene Disruption in Filamentous Fungi -- Integrated Automation for Continuous High-Throughput Synthetic Chromosome Assembly and Transformation to Identify Improved Yeast Strains for Industrial Production of Biofuels and Bio-based Chemicals -- Imaging Flow Cytometry and High-throughput Microscopy for Automated Macroscopic Morphological Analysis of Filamentous Fungi -- Yeast Cell Electroporation in Droplet-Based Microfluidic Chip -- Identification of T-DNA Integration Sites: TAIL-PCR and Sequence Analysis -- Genetic and Genomic Manipulation in *Aspergillus niger* -- Genetic Manipulation of *Meyerozyma guilliermondii*.

Sommario/riassunto

Several different transformation techniques have been developed over the years and readily shown to be decisive methods in fungal biotechnology. While Volume 1 provided its readers with an in-depth understanding of how the transformation of DNA is used to understand the genetic basis behind these fungal traits, Volume 2 of this text describes the transformation associated methods, tools, and many relevant elements available to the modern fungal researcher. With ample illustrative examples and protocols, *Genetic Transformation Systems in Fungi*, Volume 2 is meant not only as a reference guide for the experienced researcher, but also as a learning tool for the emerging scientist.
