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Titolo	Fungal RNA Biology / / edited by Ane Sesma, Tobias von der Haar
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ISBN	9783319056876 3-319-05687-5
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (396 p.)
Disciplina	570 571.2 571.2/9 572.84
Soggetti	Nucleic acids Gene expression Systems biology Microbiology Nucleic Acid Chemistry Gene Expression Systems Biology Eukaryotic Microbiology
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	RNA polymerase II-dependent transcription in fungi and its interplay with mRNA decay -- Pre-mRNA splicing and the spliceosome: assembly, catalysis and fidelity -- Fungal pre-mRNA 3' end processing -- mRNA export -- mRNA translation: Fungal variations on a eukaryotic theme -- mRNA localization -- mRNA degradation and decay -- Cytoplasmic mRNA surveillance pathways -- Making Ribosomes: pre-rRNA Transcription and Processing -- Biogenesis and evolution of functional tRNAs -- Small RNA-mediated gene silencing in Neurospora -- The RNAi machinery in Mucorales: the emerging role of endogenous small RNAs -- Regulation of pericentric heterochromatin by ncRNA in

	Schizosaccharomyces pombe -- Approaches for dissecting RNA-binding protein networks -- Bioinformatic tools for Next-Generation RNA sequencing analysis.
Sommario/riassunto	This book presents an overview over the diverse functions RNA plays in fungal biology, highlighting the latest state of knowledge, as well as remaining questions and future challenges in this area. It covers a wide range of RNA-mediated biological mechanisms in yeasts and filamentous fungi, including organisms widely used as models for general aspects of eukaryotic biology, and of great importance in industrial applications, medicine and agriculture. Despite the diversity of the estimated 1 million fungal species (saprophytic, parasitic and mutualistic), fungi share common features distinctive from plants and animals and have been grouped taxonomically as an independent eukaryotic kingdom. In this book, 15 chapters written by experts in their fields cover the RNA-dependent processes that take place in fungal cells ranging from formation of coding and non-coding RNAs to mRNA translation, ribosomal RNA biogenesis, gene silencing, RNA editing and epigenetic regulation.