Record Nr. UNINA9910787657403321 Neurospora: genomics and molecular biology / / edited by Durgadas P. **Titolo** Kasbekar and Kevin McCluskey Pubbl/distr/stampa Norfolk, England:,: Caister Academic Press,, [2013] ©2013 **ISBN** 1-908230-77-0 Descrizione fisica 1 online resource (305 p.) Disciplina 579.567 Soggetti Neurospora Fungi - Genetics Fungal molecular biology 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 and index. Contents: Preface: Ch 01: Neurospora: the Organism, its Genes and its Nota di contenuto Genome: Ch 02: The Fungal Sense of Non-self: Ch 03: Control of Branching in Neurospora crassa; Ch 04: Glycosyl Hydrolases: Modular Structure, Physiological Roles, Gene Amplification and Evolution; Ch 05: Quantitative Genetics in Neurospora; Ch 06: Genetic Recombination in Neurospora crassa; Ch 07: Neurospora Duplications, and Genome Defence by RIP and Meiotic Silencing; Ch 08: Mutagen Response and Repair: Ch 09: Regulation of Gene Transcription by Light in Neurospora Ch 10: Regulation and Physiological Function of Mitogen-activated Protein Kinase and cAMP-dependent Protein Kinase PathwaysCh 11: Heterotrimeric G Proteins; Ch 12: Calcium Signalling; Ch 13: Carotenoid Biosynthesis in Neurospora; Ch 14: The Neurospora Circadian System: From Genes to Proteins and Back in Less Than 24 hours; Ch 15: Neurospora Gene and Genome Analysis: Past Through Future; Index Sommario/riassunto Building on over 70 years of genetics research, Neurospora continues to be the leading model for the study of the genomics and molecular biology of filamentous fungi. The ease of culture, amenability to genetic and molecular genetic analysis, and the close correlation between genetic and biochemical traits are some of its advantages.

Research with Neurospora has provided insights unachievable from

work with simpler systems and difficult to extract from more complicated ones, cementing its position as a leading model system. In recent years, the application of modern high throughput analyses ha