Record Nr. UNINA9910818580603321 Bacterial gene regulation and transcriptional networks / / Edited by M. **Titolo** Madan Babu Pubbl/distr/stampa Norfolk, England:,: Caister Academic Press,, [2013] ©2013 **ISBN** 1-908230-79-7 Descrizione fisica 1 online resource (293 p.) Disciplina 589.9015 Soggetti **Bacterial genetics Bacterial transformation** Genetic regulation Genetic transcription Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Contents: Contributors: Preface: Ch 01: The Bacterial Transcription Apparatus; Ch 02: DNA Structure and Bacterial Nucleoid-associated Proteins; Structure and Evolution of Prokaryotic 3Transcription Factor Binding Sites; Ch 04: Operons and Prokaryotic Genome Organization; Ch 05: Small-molecule-mediated Signalling in Bacteria; Ch 06: Transcriptional Circuits and Phenotypic Variation; Ch 07: Genomic Approaches to Reconstructing Transcriptional Networks; Ch 08: Structure and Evolution of Transcriptional Regulatory Networks; Ch 09: Operation of the Gene Regulatory Network in Escherichia coli Ch 10: Bacillus subtilis Transcriptional NetworkCh 11: Helicobacter pylori Transcriptional Network; Ch 12: The Transcriptional Regulatory Network of Mycobacteriumtuberculosis; Ch 13: Transcriptional Regulatory Network in Pseudomonas aeruginosa; Ch 14: Transcriptional Regulation Network in Cyanobacteria: a Comparative Genomic View; Appendix; Table A.1 Family-wise list of transcription factors found in P. aeruginosa PAO1; Table A.2 Transcription factor interacting partners; Index Sommario/riassunto Gene regulation at the transcriptional level is central to the process by

which organisms convert the constant sensing of environmental

changes and intracellular fluxes of metabolites to homeostatic responses. In recent years, a wealth of data from structural studies, sequence analysis, and comparative genomics has led to a greater understanding of bacterial gene regulation and transcriptional networks. Contributors from around the world have joined forces in this book to review and discuss the latest research observations and current theories in this highly topical and important area of micro