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	Descrizione fisica	1 online resource (317 p.)
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	Altri autori (Persone)	AkayMetin
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	Soggetti	Proteomics
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	Nota di contenuto	Preface. -- Contributors. -- 1. Qualitative Knowledge Models in Functional Genomics and Proteomics (Mor Peleg, Irene S. Gabashvili, and Russ B. Altman). -- 1.1. Introduction. -- 1.2. Methods and Tools. -- 1.3. Modeling Approach and Results. -- 1.4. Discussion. -- 1.5. Conclusion. -- References. -- 2. Interpreting Microarray Data and Related Applications Using Nonlinear System Identification (Michael Korenberg). -- 2.1. Introduction. -- 2.2. Background. -- 2.3. Parallel Cascade Identification. -- 2.4. Constructing Class Predictors. -- 2.5. Prediction Based on Gene Expression Profiling. -- 2.6. Comparing Different Predictors Over the Same Data Set. -- 2.7. Concluding Remarks. -- References. -- 3. Gene Regulation Bioinformatics of Microarray Data (Gert Thijs, Frank De Smet, Yves Moreau, Kathleen Marchal, and Bart De Moor). -- 3.1. Introduction. -- 3.2. Introduction to Transcriptional Regulation. -- 3.3. Measuring Gene Expression Profiles. -- 3.4. Preprocessing of Data. -- 3.5. Clustering of Gene

Sommario/riassunto	Current applications and recent advances in genomics and proteomics Genomics and Proteomics Engineering in Medicine and Biology presents a well-rounded, interdisciplinary discussion of a topic that is at the cutting edge of both molecular biology and bioengineering. Compiling contributions by established experts, this book highlights up-to-date applications of biomedical informatics, as well as advancements in genomics-proteomics areas. Structures and algorithms are used to analyze genomic data and develop computational solutions for pathological understanding. Topics discussed include: . Qualitative knowledge models. Interpreting micro-array data. Gene regulation bioinformatics. Methods to analyze micro-array. Cancer behavior and radiation therapy. Error-control codes and the genome. Complex life science multi-database queries. Computational protein analysis. Tumor and tumor suppressor proteins interactions.