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Altri autori (Persone)	Van EykJennifer E. <1959-> DunnMichael J. <1936->
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Nota di contenuto	Proteomic and Genomic Analysis of Cardiovascular Disease; Preface; Contents; List of Contributors; Abbreviations; Section 1 Genomics; 1 Large Scale Expression Profiling in Cardiovascular Disease Using Microarrays: Prospects and Pitfalls; 1.1 DNA Microarray Technologies; 1.1.1 cDNA Microarrays or Oligonucleotide Arrays?; 1.1.2 Designing Meaningful Experiments; 1.2 Computational Analysis of Microarray Data; 1.2.1 Raw Data Analysis; 1.2.2 Comparing Expression Data; 1.2.3 Clustering Algorithms; 1.2.4 Data Sharing; 1.3 Potential Use of this Technology in Understanding Complex Heart Disease 1.4 Acknowledgements1.5 References; 2 Global Genomic Analyses of Cardiovascular Disease: A Potential Map or Blind Alley?; 2.1 Blindly Searching for Structure-Function; 2.2 The Starting Line: Garbage In - Garbage Out?; 2.3 Is the Mouse a Valid Model for Human-Based Disease Transcriptome Studies?; 2.4 Arrays and Cardiovascular Disease; 2.5 Filtering the Transcriptome: Enhancing the Value; 2.6 Concluding Remarks; 2.7 References; 3 Heart Failure: A Genomics Approach; 3.1

Overview of Heart Failure; 3.2 Pathophysiology of Heart Failure; 3.3 Genomic Approach to Heart Failure; 3.4 Conclusion
3.5 Acknowledgements3.6 References; 4 Principles of cDNA Microarrays as Applied in Heart Failure Research; 4.1 The Clinical Problem; 4.2 The Need for a New Paradigm; 4.3 The Potential Role of the Microarray; 4.4 Strengths of Microarray Technology; 4.5 Caveats of Using the Microarray Technology; 4.6 Experimental Design; 4.7 Tissue Preparation and Preservation; 4.8 RNA Isolation; 4.9 RNA Amplification; 4.10 Probe Labeling; 4.11 Data Analysis and Bioinformatics; 4.12 Application: New Classification of Disease; 4.13 Application: Pathogenesis of Disease
4.14 Application: Early Disease Markers and Prognosis4.15 Application: Therapeutic Insights; 4.16 Acknowledgements; 4.17 References; 5 Gene Profiling in the Heart by Subtractive Hybridization; 5.1 Strategies and Limitations of Genome Profiling; 5.1.1 The Biological Problem; 5.1.2 The Model; 5.1.3 The Technological Approach; 5.2 Analyzing Gene Expression by Subtractive Hybridization; 5.2.1 Methodology; 5.2.2 Advantages and Disadvantages; 5.3 Genomics of Myocardial Ischemia; 5.4 Subtractive Hybridization of Myocardial Ischemia; 5.4.1 Myocardial Stunning
5.4.2 Genomic Profile of Myocardial Stunning5.4.3 Chasing Novel Genes; 5.5 Summary; 5.6 Acknowledgements; 5.7 References; 6 DNA Microarray Gene Profiling: A Tool for the Elucidation of Cardioprotective Genes; 6.1 Introduction; 6.2 Candidates for Cardioprotective Genes and Possible Mechanism(s) of Protection; 6.2.1 Candidate Genes Involved in Cardioprotection; 6.2.2 Potential Mechanisms of Cardioprotection; 6.3 Is There a Common Set of Cardioprotective Genes?; 6.4 Effects of Long-term Activation and Dosage of Cardioprotective Genes; 6.5 Approaches to Identify Genes Involved in Cardioprotection
6.5.1 Preconditioning

Sommario/riassunto

This is the very first book to focus on this new approach that will eventually aid in developing new diagnostic markers and therapies for controlling and treating heart disease - the number-one killer in the industrialized world.Divided into two parts, the book describes not only the potentials, but also the limitations of these technologies. The editors, both well known within the scientific community, provide new insights into the biochemical and cellular mechanisms of cardiovascular disease, as well as covering the transition into clinical applications. In so doing, they highlight the v