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Nota di contenuto	Toxicogenomics; Contents; Preface; List of Contributors; Acknowledgments; SECTION 1 DESIGN, ANALYSIS AND INTERPRETATION OF TOXICOGENOMICS; 1 Mechanistic Toxicogenomics: Design and Analysis of Microarray Experiments; 2 A New Approach to Analysis and Interpretation of Toxicogenomic Gene Expression Data and its Importance in Examining Biological Responses to Low, Environmentally Relevant Doses of Toxicants; 3 Principles of Data Mining in Toxicogenomics; 4 Design Issues in Toxicogenomics: The Application of Genomic Technologies for Mechanistic and Predictive Research 5 Sources of Variability in Toxicogenomic Assays6 Key Aspects of Toxicogenomic Data Analysis and Interpretation as a Safety Assessment Tool to Identify and Understand Drug-Induced Toxicity; SECTION 2 APPLICATIONS OF TOXICOGENOMICS; 7 Toxicogenomics as a Tool to Assess Immunotoxicity; 8 Toxicogenomics and Ecotoxicogenomics: Studying Chemical Effects and Basic Biology in Vertebrates and Invertebrates; 9 Gene Expression Profiling of Transplacental Arsenic Carcinogenesis in Mice; 10 Characterization of Estrogen-active

Compounds and Estrogenic Signaling by Global Gene Expression Profiling In Vitro
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13 Toxicogenomics Approach to Drug-induced Phospholipidosis;
14 Use of Toxicogenomics as an Early Predictive Tool for Hepatotoxicity;
15 Nutrigenomics: The Application of Genomics Signatures in Nutrition-related Research;
16 Application of Toxicogenomics in Drug Discovery;
SECTION 3 TOXICOGENOMICS AND RISK ASSESSMENT;
17 Natural Products from Medicinal Plants and Risk Assessment
18 The Development of a Metabonomic-based Drug Safety Testing Paradigm
19 Potential Uses of Toxicogenomic Biomarkers in Occupational Health and Risk Assessment;
SECTION 4 TOXICOGENOMICS FOR REGULATORY USE;
20 Toxicogenomics: A Regulatory Perspective;
21 Toxicogenomics for Regulatory Use: The View from the Bench;
22 Perspectives on Toxicogenomics Activities at the US Environmental Protection Agency;
Index; Color Plate

Sommario/riassunto

Toxicogenomics is the integration of genomics to toxicology. This technology is a powerful tool for collecting information from a large number of biological samples simultaneously and thus it is very useful for large-scale screening of potential toxicants. Toxicogenomics: A Powerful Tool For Toxicity Assessment provides up-to-date state-of-the-art information presented by the recognized experts, and is therefore an authoritative source of current knowledge in this field of research. The potential link between toxicology, genetics and human diseases makes this book very useful to in
