1. Record Nr. UNINA9910831169203321 Batch effects and noise in microarray experiments, sources, and **Titolo** solutions [[electronic resource] /] / edited by Andreas Scherer Pubbl/distr/stampa Chichester, West Sussex: Hoboken,: J. Wiley, 2009 **ISBN** 1-282-37950-X 9786612379505 0-470-68598-0 0-470-68599-9 Descrizione fisica 1 online resource (282 p.) Collana Wiley Series in Probability and Statistics;; v.868 Altri autori (Persone) SchererAndreas <1966-> Disciplina 572.8 572.8636 611.01816 Soggetti **DNA** microarrays DNA microarrays - Experiments Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Batch Effects and Noise in Microarray Experiments; Contents; List of Contributors; Foreword; Preface; 1 Variation, Variability, Batches and Bias in Microarray Experiments: An Introduction; 2 Microarray Platforms and Aspects of Experimental Variation; 2.1 Introduction; 2.2 Microarray Platforms; 2.2.1 Affymetrix; 2.2.2 Agilent; 2.2.3 Illumina; 2.2.4 Nimblegen; 2.2.5 Spotted Microarrays; 2.3 Experimental Considerations; 2.3.1 Experimental Design; 2.3.2 Sample and RNA Extraction; 2.3.3 Amplification; 2.3.4 Labeling; 2.3.5 Hybridization; 2.3.6 Washing; 2.3.7 Scanning 2.3.8 Image Analysis and Data Extraction 2.3.9 Clinical Diagnosis; 2.3.10 Interpretation of the Data; 2.4 Conclusions; 3 Experimental

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Sommario/riassunto

Batch Effects and Noise in Microarray Experiments: Sources and Solutions looks at the issue of technical noise and batch effects in microarray studies and illustrates how to alleviate such factors whilst interpreting the relevant biological information. Each chapter focuses on sources of noise and batch effects before starting an experiment, with examples of statistical methods for detecting, measuring, and managing batch effects within and across datasets provided online. Throughout the book the importance of standardization and the value of standard operating procedures in the devel