Bioinformatics and Biomarker Discovery: "Omic" Data Analysis for Personalized Medicine

Introduces biologists, clinicians and computational researchers to fundamental data analysis principles, techniques and tools for supporting the discovery of biomarkers and the implementation of diagnostic/prognostic systems.

The focus of the book is on how fundamental statistical and data mining approaches can support biomarker discovery and evaluation, emphasising applications based on different types of "omic" data. It also discusses design factors, requirements and techniques for disease screening, diagnostic and prognostic applications.

Readers are provided with the knowledge needed to assess the requirements, computational approaches and outputs in disease biomarker research. Commentaries from guest experts are also included, containing detailed discussions of methodologies and applications based on specific types of "omic" data, as well as their integration.