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Sommario/riassunto

This volume is the first comprehensive text on human biobanking, authored by scientists and regulatory officers who have led the field over the past 10 years. It covers biobanking issues and its importance in advancing the field of research in cancer, cardiovascular, metabolic, and other diseases. Biobanks of human specimens have become the cornerstone for research on human health that harnesses the power of "omics" technologies to identify biomarkers for disease susceptibility. Biobanks are an essential component of the development of personalized medicine, which relies on the molecular analysis of biospecimens that are truly representative of individuals and of diseases. Over the past decade, biobanking has been the focus of major investments and developments aimed at developing appropriate infrastructure, methods, networking practice and evidence-based pre-analytical procedures. This volume explores topics including specimen storage, protocol design, specimen collection, pre-analytical processing and preservation, long-term storage, retrieval and separation, and distribution to analytical laboratory platforms. These activities are extremely complex and are essential for biomedical and biotechnological developments and this text provides critical information about biobanking for the development of future forms of medicine.