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Sommario/riassunto	<p>Next generation sequencing (NGS) has surpassed the traditional Sanger sequencing method to become the main choice for large-scale, genome-wide sequencing studies with ultra-high-throughput production and a huge reduction in costs. The NGS technologies have had enormous impact on the studies of structural and functional genomics in all the life sciences. In this book, Next Generation Sequencing Advances, Applications and Challenges, the sixteen chapters written by experts cover various aspects of NGS including genomics, transcriptomics and methylomics, the sequencing platforms, and the bioinformatics challenges in processing and analysing huge amounts of sequencing data. Following an overview of the evolution of NGS in the brave new world of omics, the book examines the advances and challenges of NGS applications in basic and applied research on microorganisms, agricultural plants and humans. This book is of value to all who are interested in DNA sequencing and bioinformatics across all fields of the life sciences.</p>