Record Nr. UNINA9910350248703321 Omics Approaches, Technologies And Applications [[electronic **Titolo** resource]]: Integrative Approaches For Understanding OMICS Data // edited by Preeti Arivaradarajan, Gauri Misra Singapore:,: Springer Singapore:,: Imprint: Springer,, 2018 Pubbl/distr/stampa **ISBN** 981-13-2925-7 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (XV, 148 p. 32 illus., 29 illus. in color.) Disciplina 576.5 Soggetti Genetics Gene expression **Bioinformatics Proteomics** Genetics and Genomics Gene Expression Computational Biology/Bioinformatics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Module 1_Introduction to omics -- Module 2_Genomics -- Module 3_Transcriptomics -- Module 4-_ Proteomics -- Module 5_ Metabolomics -- Module 6 Microbiome -- Module 7 Bioinformatics resources. This book is a concerted effort to put together the rapidly growing Sommario/riassunto facets of biological data. It provides a platform for the readers to think about integrative approaches to solve complex biological problems. This fundamental book deals with the simplest concepts of omics to recent advancements in the field. The content is divided into seven chapters that provide insight into various omics approaches, omics technologies, and its applications. Each chapter delves into different molecular scales: genomics, transcriptomics, proteomics, and metabolomics. Further to provide a holistic view a chapter detailing microbiome has been included in the book. The sub-sections in the chapters is dedicated to introducing the various analytical tools such as

next generation sequencing, chromatin immunoprecipitation, mass

spectrometry, peptide mass fingerprinting, RNA Seq and NMR spectroscopy. It entails a chapter focused on the bioinformatics resources for analysis of the omics data. In summary, this comprehensive book emphasizes the recent advancements in the study of biomolecules spanning from DNA to metabolites.