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Titolo	Next generation sequencing and data analysis // Melanie Kappelmann-Fenzl, editor
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ISBN	3-030-62490-0
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XII, 218 p. 54 illus., 51 illus. in color.)
Collana	Learning materials in biosciences
Disciplina	572.8
Soggetti	Sequence alignment (Bioinformatics) Biologia computacional Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Next Generation Sequencing (NGS)- What can be sequenced? -- Opportunities and Perspectives of NGS Applications in Cancer Research -- Chapter 3. Library Construction for NGS -- Chapter 4. NGS Technologies -- Chapter 5. Computer Setup -- Chapter 6. Introduction to Command Line -- Chapter 7. NGS Data -- Chapter 8. Reference Genome -- Chapter 9. Alignment -- Chapter 10. Identification of Genetic Variants and de novo Mutations Based on NGS -- Chapter 11. Design and Analysis of RNA Sequencing Data -- Chapter 12. Design and Analysis of Epigenetics and CHIP-Sequencing Data -- APPENDIX.
Sommario/riassunto	This textbook provides step-by-step protocols and detailed explanations for RNA Sequencing, CHIP-Sequencing and Epigenetic Sequencing applications. The reader learns how to perform Next Generation Sequencing data analysis, how to interpret and visualize the data, and acquires knowledge on the statistical background of the used software tools. Written for biomedical scientists and medical students, this textbook enables the end user to perform and comprehend various Next Generation Sequencing applications and their analytics without prior understanding in bioinformatics or computer sciences.