1. Record Nr. UNINA9910863114703321

Titolo	Metagenomics: Techniques, Applications, Challenges and Opportunities / / edited by Reena Singh Chopra, Chirag Chopra, Neeta Raj Sharma
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2020
ISBN	981-15-6529-5
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (VIII, 227 p. 35 illus., 27 illus. in color.)
Disciplina	572.8629
Soggetti	Microbiology Molecular genetics Industrial microbiology Bioinformatics Molecular Genetics Industrial Microbiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1. Introduction to Metagenomics -- Chapter 1. The New Science of Metagenomics: Revealing the Secrets of Microbial Physiology -- Chapter 2. The Coming Together of Sciences: Metagenomics for Microbial Biochemistry -- Part 2. Applications of Metagenomics -- Chapter 3. Metagenomic DNA sequencing: Technological Advances and Applications -- Chapter 4. Environmental Microbial Forensics- How Hidden is the Truth? -- Chapter 5. Metagenomics Analyses: A Qualitative Assessment Tool for Applications in Forensic Sciences -- Chapter 6. Realizing Bioremediation Through Metagenomics- A Technical Review -- Chapter 7. Metagenomics and Enzymes: The Novelty Perspective -- Chapter 8. Metagenomics and Drug-Discovery -- Chapter 9. Epidemiological Perspectives of Human Health through -- Metagenomic Research -- Chapter 10. Metagenomic Applications of Wastewater Treatment -- Chapter 11. Metagenomics in Agriculture: State-of-the-art -- Chapter 12. The Skin Metagenomes: Insights into Involvement of Microbes in Diseases -- Chapter 13. Computational Metagenomics: State-of-the-art, Facts and Artifacts.
Sommario/riassunto	This book summarizes the various areas of research in metagenomics

and their potential applications in medicine, the environment and biotechnology. The book presents the recent advances in theoretical, methodological and applied aspects of metagenomics and highlights their applications in the fields of environmental microbial forensics, bioremediation, drug-discovery and agriculture. In addition, the book discusses various metagenomics approaches used for understanding the microbial physiology and biochemistry. Lastly the book describes a range of bioinformatics tools and computational methods for metagenomics analysis as well as the functional diversity and dynamics of microbial communities colonizing the human skin.