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Titolo	Metagenomic systems biology : integrative analysis of the microbiome / / edited by Shailza Singh
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ISBN	981-15-8562-8
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Descrizione fisica	1 online resource (vii, 205 pages) : illustrations (chiefly color)
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Soggetti	Medical microbiology Bacteriology
Lingua di pubblicazione	Inglese
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Nota di contenuto	Chapter 1. Gut Microbiome in Microbial Pathogenicity -- Chapter 2. Role of Genome Wide Association Studies in Host Genetics: Towards Understanding of Microbiome Association -- Chapter 3. Understanding Microbiome Science through Big Data analysis -- Chapter 4. Comparative MetaGenomics Facilitates Drug Target Selection and Develop Intervention Strategies -- Chapter 5. Culture-independent omics-techniques for microbiome-based molecular therapeutics against Infectious Diseases -- Chapter 6. The Earth’s Microbiome: Significance in Sustainable Development & Impact of Climate Changes -- Chapter 7. Microbiome for Personalized Medicine -- Chapter 8. Metagenomic Insights of Yarrowia lipolytica in Food Industry -- Chapter 9. Foodomics-The Why, Who and What of It. .
Sommario/riassunto	The book serves as an amalgamation of knowledge and principles used in the area of systems and synthetic biology, and targets inter-disciplinary research groups. The readers from diversified areas would be benefited by the valuable resources and information available in one book. Microbiome projects with efficient data handling can fuel progress in the area of microbial synthetic biology by providing a ready to use plug and play chassis. Advances in gene editing technology such as the use of tailor made synthetic transcription factors will further enhance the availability of synthetic devices to be applied in the fields of environment, agriculture and health. The different chapters of the

book reviews a broad range of topics, including food microbiome in ecology, use of microbiome in personalized medicine, machine learning in biomedicine. The book also describes ways to harness and exploit the incredible amounts of genomic data. The book is not only limited to medicine but also caters to the needs of environmentalists, biochemical engineers etc. Ii will be of interest to advanced students and researchers in life sciences, computational biology, microbiology and other inter-disciplinary areas. .