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Nota di contenuto	Chapter 1: Introduction, History and Discovery of Bacterial Membrane Vesicles -- Chapter 2: Biogenesis of Gram-negative OMVs -- Chapter 3: Biogenesis and Function of Extracellular Vesicles in Gram-positive Bacteria, Mycobacteria and Fungi -- Chapter 4: Extracellular vesicles in the environment -- Chapter 5: Functions of MVs in inter-bacterial communication -- Chapter 6: Membrane Vesicles From Plant Pathogenic Bacteria and Their roles During Plant-Pathogen Interactions -- Chapter 7: Delivery of virulence factors by bacterial membrane vesicles to mammalian host cells -- Chapter 8: Immunodetection and pathogenesis mediated by bacterial membrane vesicles -- Chapter 9: Membrane Vesicles from the Gut Microbiota and their Interactions with the Host -- Chapter 10: Bacterial Membrane Vesicles and Their Applications as Vaccines and in Biotechnology.
Sommario/riassunto	This book focuses on the multitude of functions bacterial membrane vesicles perform in bacterial ecology and pathogenesis as well as in

emerging medical and biotechnological applications. Both Gram-negative and Gram-positive bacteria produce membrane-bound nanostructures, known as membrane vesicles, which have a range of functions that include serving as delivery vehicles, providing a means of communication over both spatial and temporal scales, and contributing to bacterial survival and evolution. Topics covered in this book range from the biogenesis and composition of bacterial membrane vesicles to their abundance and biological roles in microbial ecosystems, such as marine environments. In the individual chapters, the involvement of bacterial membrane vesicles in host-pathogen interactions, promoting virulence and in facilitating the establishment of infection is explained. In addition, current knowledge regarding membrane vesicles produced by commensal bacteria and their role in the maturation of the host immune system, as well as the therapeutic potential of bacterial membrane vesicles as delivery systems and innovative nanotechnology-based therapeutics are discussed. This work appeals to a wide readership of students and researchers interested in microbial ecology, mechanism underlying pathogenesis and new avenues in applied microbiology and nanotechnology.