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Nota di contenuto	Biological diversity of prokaryotic type IV secretion systems.- Evolution of type IV secretion systems and their substrates.- Structural and molecular biology of type IV secretion systems.- Relaxosome formation and transfer of broad-host range plasmids Gram-negative bacteria. - Mechanisms of conjugative transfer by Gram-positive broad-host range plasmids.- Social behavior and decision making in bacterial conjugation -- Structure and chemical biology approaches to understand type IV secretion system function and inhibition -- Type IV secretion systems: A pivotal tool to establish intracellular lifestyle by pathogens.- Subversion of host target cells by the Legionella type IV secretion system.- Role of multiple type IV secretion systems in Bartonella infections.- Requirements for T4SS effector protein translocation and function by the Coxiella Dot/Icm system. - Composition and function of the Helicobacter pylori cag type IV secretion system.- Secretion of chromosomal DNA by the gonococcal type IV secretion system. .

Type IV secretion systems (T4SSs) are highly versatile membrane-associated transporter machines used by Gram-negative and Gram-positive bacteria to deliver substrate molecules to a large variety of target cells. This volume summarizes our current knowledge of the large variety and structural diversity of T4SSs in pathogenic *Escherichia*, *Agrobacterium*, *Legionella*, *Coxiella*, *Bartonella*, *Helicobacter*, *Enterococcus* and other species. Divided into 13 chapters contributed by leading experts, it presents findings that significantly enhance our understanding of how various pathogens manipulate host cell functions to trigger bacterial uptake, promote intracellular growth, suppress defense mechanisms and of how bacteria spread antibiotic resistances, thus facilitating bacterial colonization and disease development. The book is an invaluable source of information for researchers and clinicians.
