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Titolo	Protein and Sugar Export and Assembly in Gram-positive Bacteria / / edited by Fabio Bagnoli, Rino Rappuoli
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Descrizione fisica	1 online resource (X, 337 p.)
Collana	Current Topics in Microbiology and Immunology, , 2196-9965 ; ; 404
Disciplina	614.579
Soggetti	Medical microbiology Clinical biochemistry Medicine - Research Biology - Research Medical Microbiology Medical Biochemistry Biomedical Research
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Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Envelope structures of Gram-positive bacteria -- Translocation of proteins across the plasma membrane and cell envelope -- Type I signal peptidases -- The Sec system -- The twin-arginine protein translocation (Tat) system -- ExPortal: a microdomain for protein secretion in Gram-positive bacteria -- Spatial positioning of cell wall-anchored proteins -- Anchoring of LPXTG-like proteins to the cell wall envelope -- Export and processing of lipoproteins -- Pilus assembly in Gram-positive bacteria -- S-layers and related proteins: their structure, mechanisms of secretion and anchoring and their diverse functions -- Membrane translocation and assembly of sugar polymer precursors -- Type VII secretion systems -- Predicting subcellular localization of proteins by bioinformatics algorithms -- The secretome of Gram-positive bacteria -- Post-translocational folding of secretory proteins -- Protein secretion biotechnology in Gram-positive bacteria -- Exploiting Gram positive sortases for protein engineering.
Sommario/riassunto	This book focuses on the envelope of Gram-positive bacteria including

its composition, the latest discoveries in the mechanisms behind its assembly, and its role in pathogenesis. Furthermore, new applications in biotechnology and vaccine development involving these bacteria are discussed in detail. This concise volume consists of eleven chapters by prominent experts in the field, which review the latest findings and current state of knowledge on a range of diverse yet interlinked aspects. This book is written for all researchers, clinicians and technicians engaged in basic or applied science projects on Gram-positive bacteria. .