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Titolo	Iron Transport in Bacteria // edited by Jorge H. Crosa, Alexandra R. Mey, Shelley M. Payne
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Soggetti	Microbial metabolism Siderophores Iron - Physiological transport
Lingua di pubblicazione	Inglese
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Nota di contenuto	Biochemical and physical properties of siderophores / Kenneth N. Raymond and Emily A. Dertz -- Siderophore biosynthesis in bacteria / Christopher T. Walsh and C. Gary Marshall -- Hemophore-dependent heme acquisition systems / Laurent Debarbieux and Cecile Wandersman -- Structure of outer membrane receptor proteins / Dick van der Helm -- Bacterial heme and hemoprotein receptors / Donna Perkins-Balding, Andrew Rasmussen, and Igor Stojiljkovic -- Bacterial heme oxygenases / Melanie Ratliff-Griffin, Angela Wilks, and Igor Stojiljkovic -- The tonB, exbB, and exbD proteins / Kathleen Postle and Ray A. Larsen -- Periplasmic binding proteins involved in bacterial iron uptake / Karla D. Krewulak, R. Sean Peacock, and Hans J. Vogel -- Iron uptake via the enterobactin system / Charles F. Earhart -- Transport biochemistry of fepA / Phillip E. Klebba -- Ferrichrome- and citrate-mediated iron transport / Volkmar Braun, Michael Braun, and Helmet Killman -- Ferrous iron transport / Klaus Hantke -- Mode of binding of the fur protein to target DNA: negative regulation of iron-controlled gene expression / Victor de Lorenzo, Jose Perez-Martin, Lucia Escolar, Graziano Pesole, and Giovanni Bertonni -- Pathogenic Escherichia coli, Shigella, and Salmonella / Shelley M. Payne and Alexandra R. Mey -- Yersinia / Robert D. Perry -- Vibrio / Manuela Di Lorenzo, Michiel Stork, Alejandro F. Alice, Claudia S. Lopez, and Jorge H. Crosa -- Neisseria / Cynthia Nau Cornelissen and P. Frederick Sparling --

Haemophilus / Daniel J. Morton and Terrence L. Stull -- Pseudomonas / Keith Poole -- Bordetella / Timothy J. Brickman, Carin K. Vanderpool, and Sandra K. Armstrong -- Porphyromonas gingivalis / Caroline Attardo Genco, Waltena Simpson, and Teresa Olczak -- Corynebacterium diphtheriae / Michael P. Schmitt -- Pathogenic mycobacteria / G. Marcela Rodriguez and Issar Smith -- Legionella / Nicholas P. Cianciotto -- Staphylococcus, Streptococcus, and Bacillus / David E. Heinrichs, Andrea Rahn, Suzanne E. Dale, and Michael Tom Sebelsky -- Erwinia, a plant pathogen / Dominique Expert, Lise Rauscher, and Thierry Franza -- Therapeutic uses of iron(III) chelator and their antimicrobial conjugates / Vinay Girijavallabhan and Marvin J. Miller -- Ecology of siderophores / Gunther Winkelmann -- Environmental fluorescent Pseudomonas and Pyoverdine diversity: how siderophores could help microbiologists in bacterial identification and taxonomy / Jean-Marie Meyer and Valerie A. Geoffroy -- Mechanisms and regulation of iron uptake in the rhizobia / Andrew W.B. Johnston.

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Sommario/riassunto

Provides an up-to-date survey of iron transport systems in bacteria- Details iron transport and its regulation in E. coli as a prototype for iron transport systems in gram-negative bacteria- Includes chapters on the major gram-negative, gram-positive and acid-fast bacterial pathogens - their iron transport systems and the roles of these systems in virulence- Presents structural studies of siderophores, heme carriers, and iron transport proteins- Discusses the ecology of siderophores and their potential therapeutic uses.

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