Record Nr. UNINA9910144558203321 Bacterial responses to pH [[electronic resource] /] / [editors, Derek J. **Titolo** Chadwick and Gail Cardew] Pubbl/distr/stampa Chichester;; New York,: J. Wiley & Sons, 1999 **ISBN** 1-282-34813-2 9786612348136 0-470-51563-5 0-470-51564-3 Descrizione fisica 1 online resource (278 p.) Collana Novartis Foundation symposium: 221 Altri autori (Persone) ChadwickDerek CardewGail Disciplina 579.3 Soggetti Bacteria Hydrogen-ion concentration Extreme environments - Microbiology Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Based on a symposium held at the Novartis Foundation, London 1-4 June, 1998. Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto BACTERIAL RESPONSES TO pH: Contents: Participants: Introduction: Problems of adverse pH and bacterial strategies to combat it; The regulation of intracellular pH in bacteria; pH sensing in bacterial chernotaxis; Inducible acid tolerance mechanisms in enteric bacteria; Acid and base regulation in the proteome of Escherichia coli; Acid tolerance induced by metabolites and secreted proteins, and how tolerance can be counteracted; Acid tolerance in root nodule bacteria; How can acidity? archaea cope with extreme; pH homeostasis in acidophiles The molecular mechanism of regulation of the NhaA NaC/H+ antiporter of Escherichiu coli, a key transporter in the adaptation to Na+ and H+Bacterial energetics at high pH: what happens to the H+ cycle when the extracellular H+ concentration decreases?: Proton ATPases in bacteria: comparison to Escherichia coli FIFO as the prototype; Cation

movements at alkaline pH in bacteria growing without respiration; Final

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Microbial responses to acidic and alkaline pH are important in many areas of bacteriology. For example, the mechanisms of resistance to acidic pH are important in the understanding of the passage of human pathogens through the acid of the stomach; and an understanding of microbial degradation of alkaline industrial waste is important for the environment.Bringing together contributions from an international and interdisciplinary group of experts working on the many aspects of bacterial cellular responses to pH, this stimulating volume draws together new and innovative work in this area.