Record Nr. UNINA9910877801203321 The biology of extracellular molecular chaperones // [editors, Derek J. **Titolo** Chadwick and Jamie Goodel Pubbl/distr/stampa Chichester,: John Wiley, 2008 **ISBN** 1-282-34320-3 9786612343209 0-470-75403-6 0-470-75402-8 Descrizione fisica 1 online resource (245 p.) Collana Novartis Foundation symposium;; 291 Altri autori (Persone) ChadwickDerek GoodeJamie Disciplina 572.6 612.01575 Soggetti Extracellular matrix proteins Molecular chaperones Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Published in association with the Novartis Foundation. "Symposium on The biology of extracellular molecular chaperones, held at the Novartis Foundation, London, 5-7 June 2007" -- p. v. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto The Biology of Extracellular Molecular Chaperones; Contents; Chair's introduction; 1962-2007: a cell stress odyssey; DISCUSSION; The chaperone function: meanings and myths; DISCUSSION; Systems biology of molecular chaperone networks; DISCUSSION; Unusual cellular disposition of the mitochondrial molecular chaperones Hsp60, Hsp70 and Hsp10; DISCUSSION; Cell surface molecular chaperones as endogenous modulators of the innate immune response; DISCUSSION: Cell stress proteins in extracellular fluids: friend or foe?; DISCUSSION; HSP60 speaks to the immune system in many voices: DISCUSSION Cell stress proteins: novel immunotherapeuticsDISCUSSION; General discussion; Cell stress proteins as modulators of bacteria-host

interactions; DISCUSSION; Chaperonin 60 and macrophage activation; DISCUSSION; Hsp70: a chaperokine; DISCUSSION; Extracellular functions of thioredoxin; DISCUSSION; HSP27: an anti-inflammatory and immunomodulatory stress protein acting to dampen immune

## Sommario/riassunto

function; DISCUSSION; BiP, an anti-inflammatory ER protein, is a potential new therapy for the treatment of rheumatoid arthritis; DISCUSSION; Final discussion; Contributor Index; Subject Index

The heat shock, or cell stress, response was first identified in the polytene chromosomes of Drosophila. This was later related to the appearance of novel proteins within stressed cells, and the key signal stimulating this appearance was identified as the presence of unfolded proteins within the cell. It is now known that this is a key mechanism enabling cells to survive a multitude of physical, chemical and biological stresses. Since the promulgation of the 'molecular chaperone' concept as a general cellular function to control the process of correct protein folding, a large number o