1. Record Nr. UNINA9910298336203321

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Titolo	Heat Shock Proteins and Whole Body Adaptation to Extreme Environments / / by Michael B. Evgen'ev, David G. Garbuz, Olga G. Zatsepina
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2014
ISBN	94-017-9235-6
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (233 p.)
Disciplina	570 571.6 572.6 610
Soggetti	Medicine Life sciences Cytology Proteins Cell physiology Biomedicine, general Life Sciences, general Cell Biology Protein Science Cell Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- The discovery of heat shock response system and major groups of heat shock proteins -- Molecular functions of heat shock proteins -- Regulation of heat shock genes expression -- Heat shock proteins and adaptation to variable and extreme environments -- Different trends in the evolution of heat shock genes systems.- The role of mobile elements in the evolution and function of Hsps systems -- Fine tuning of the HSR in various organisms -- Experimental modulation of heat shock response -- Glossary.
Sommario/riassunto	For many years, the authors have investigated the adaptive role of heat

shock proteins (HSPs) in different animals, including the representatives of homothermic and poikilothermic organisms that inhabit regions with contrasting thermal conditions. The investigation of ecological and geographical variation in HSPs expression, begun by Evgen'ev and colleagues is now widespread. This book will summarize the data accumulated in the course of these studies and describe the general molecular mechanisms underlying the adaptation of various organisms to aggressive environments. They also concentrate on different evolutionary trends characteristic for HSP systems in the course of adaptation to fluctuating environmental conditions. In addition, the authors describe the peculiarities in the regulatory regions of heat shock genes necessary for fine tuning of these systems providing the adaptation to adverse conditions. Special emphasis is given to the role of mobile elements in the evolution and functioning of various groups of HSP genes. The book combines the results of field studies and laboratory analysis of stress genes systems.