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Titolo	Proteostasis and Chaperone Surveillance [[electronic resource] /] / edited by Laishram Rajendrakumar Singh, Tanveer Ali Dar, Parvaiz Ahmad
Pubbl/distr/stampa	New Delhi : , : Springer India : , : Imprint : Springer, , 2015
ISBN	81-322-2467-1
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (184 p.)
Disciplina	570
Soggetti	Proteins Proteomics Protein Science Protein Structure Protein-Ligand Interactions
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 at the end of each chapters.
Nota di contenuto	Part 1: Maintaining Proteostasis -- 1. Structural Allostery and Protein-Protein Interactions of Sin3 -- 2. Protein Posttranslational Modifications: Role in Protein Structure, Function and Stability -- 3. Protein Folding and Aggregation: A revisit of basic conception -- Part 2: Proteopathy: Failure of proteostasis -- 4. Protein Folding: From Normal Cellular Function to Pathophysiology -- 5. Protein Misfolding Diseases: In perspective of Gain and loss-of-function -- 6. Amyloid formation in Alzheimer’s disease -- 7. Advances in modulation of Proteopathies, the devil spread from head to toe -- Part 3: Chaperone surveillance of proteopathy -- 8. Small Molecule Osmolytes can Modulate Proteostasis -- 9. Pharmacological Chaperones in Protein Aggregation Disorders.
Sommario/riassunto	Proteostasis is central to the development of various human diseases caused due to excessive protein misfolding and the disregulation of the protein quality control system. In this book, respected researchers from many leading institutions contribute their insights on proteostasis maintenance. The coverage mainly focuses on the basics of maintaining proteostasis, the consequences of proteostatic system failure, and how

chaperone systems constantly maintain proteostasis. In addition, the book presents in detail different treatment strategies for diseases caused by proteostatic system failure, as well as the inhibition of proteostatic failure using small molecule compounds. It examines advances in the modulation of proteopathies, providing a comprehensive source of key mechanistic insights on these diseases. As such, the book offers a valuable resource for beginners and more experienced investigators alike who are looking for detailed and reliable information on protein homeostasis, the diseases that can develop due to related imbalances, and the essential role of molecular and chemical chaperones.