1. Record Nr. UNINA9910787447203321 Autore Seneci Pierfausto Titolo Chemical modulators of protein misfolding and neurodegenerative disease / / Pierfausto Seneci London, England: ,: Academic Press, , 2015 Pubbl/distr/stampa ©2015 **ISBN** 0-12-801959-X Descrizione fisica 1 online resource (260 p.) Altri autori (Persone) SeneciPierfausto <1960-> Disciplina 616.8047 Soggetti Nervous system - Degeneration 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 and index. Nota di contenuto Cover; Title Page; Copyright Page; Dedication; Contents; Abbreviations; Chapter 1 - Chemical Modulators of Protein Misfolding. Neurodegeneration and Tau; 1.1 - Tau-targeted compounds; 1.1.1 -Tau Kinase Inhibitors; 1.1.2 - Tau O-GlcNAcylation Enhancers; 1.1.3 -Microtubule (MT)-binding Compounds; 1.2 - Ab-targeted compounds; 1.2.1 - - Secretase Inhibitors (GSIs) and Modulators (GSMs); 1.2.2 -Multi-targeted Neuroprotective and Proneurogenic Compounds; References; Chapter 2 - Targeting the Protein Quality Control (PQC) Machinery; 2.1 - Molecular chaperones, pqc, and neurodegeneration 2.2 - Hsp272.3 - Hsp70; 2.3.1 - Hsp70 Inhibitors; 2.3.2 - Hsp70-BAG-1 Inhibitors; 2.4 - Hsp90; 2.4.1 - Hsp90 Inhibitors; 2.4.2 - Hsp90-Cochaperone Complexes: Direct Inhibition; 2.4.3 - Hsp90-Co-chaperone Complexes: Indirect Inhibition; 2.5 - Recap; References; Chapter 3 -Targeting Proteasomal Degradation of Soluble, Misfolded Proteins; 3.1 - UPS-mediated degradation of misfolded proteins: 3.2 - CHIP: 3.3 -USP14; 3.4 - Recap; References; Chapter 4 - Targeting Unselective Autophagy of Cellular Aggregates: 4.1 - Macroautophagy mediated degradation of protein aggregates; 4.2 - mTORC1 4.3 - Small molecule enhancers of rapamycin (sMERs)4.4 - Recap;

> References; Chapter 5 - Targeting Selective Autophagy of Insoluble Protein Aggregates; 5.1 - Aggrephagy-mediated degradation of protein aggregates; 5.2 - p62; 5.3 - HDAC6; 5.4 - Recap; References; Chapter

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6 - Targeting Assembly and Disassembly of Protein Aggregates; 6.1 - Disordered protein aggregates and ordered amyloid fibrils; 6.2 - Interfering with (neuro)toxic tau species in the aggregation process; 6.3 - Hsp110-driven disaggregation; 6.4 - Recap; References; Index

This book is a neurochemistry-based companion for Protein Misfolding and Neurodegenerative Diseases: Molecular Targets, an Elsevier title by the same author publishing in December 2014. While the first book focuses on biology and molecular targets, this companion book describes how these targets are regulated by small molecules and disease-modifying compounds. The book begins with a brief introduction to how key proteins become dysfunctional, and each subsequent chapter describes major disease mechanisms in Alzheimer's and other tauopathies. Properties and development status of these molecula