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ReferencesI General Diseases; 2 Mechanisms of Regulation of p62 in Autophagy and Implications for Health and Diseases; Introduction; LC3 Recognition by p62; Interacting Region between LC3 and p62; Overall Structure of the LC3-p62-LRS Complex; Characterization of Atg8 Homologue-LRS Domain; Role of p62 as an Autophagy Receptor; Autophagic Degradation of p62; Requirement of the PB1 Domain for p62 Degradation; Ubiquitin- and p62-Positive Inclusion Formation; Discussion; References; 3 Molecular Mechanisms Underlying the Role of Autophagy in Neurodegenerative Diseases; Autophagy Overview and Types
Pathway and Mechanism for AutophagyInitiation; Nucleation; Elongation; Maturation/Fusion with Lysosomes; Physiological Roles of Autophagy; Autophagy and Neuronal Physiology; Quality Control; Development and Differentiation; Autophagy and Neurodegenerative Diseases; Alzheimer's Disease; Parkinson's Disease; Huntington's Disease; Amyotrophic Lateral Sclerosis; Frontotemporal Dementia; Cerebral Ischemia (Injury); Conclusions and Future Perspective; Acknowledgments; References; 4 Roles of Multiple Types of Autophagy in Neurodegenerative Diseases
Degradation of ALS-Linked Mutant SOD1 by MacroautophagyInteraction between Parkinson's Disease-Associated UCH-L1 and Chaperone-Mediated Autophagy; Degradation of RNA by Rnautophagy: Its Possible Roles in Neurodegenerative Disorders; References; 5 Autophagy and Crohn's Disease: Towards New Therapeutic Connections; Introduction: Crohn's Disease and Faulty Autophagy go Hand in Hand; Autophagy: A Hot Novel Target or an Old Friend?; Autophagy Regulates Immunity; Anti-TNF-; Thiopurines; Curcumin; Direct Autophagy Modulators; Diagnostic Value of the Autophagic Status; Concluding Remarks; References
6 The Role of Autophagy in Atherosclerosis

Sommario/riassunto

Understanding the importance and necessity of the role of autophagy in health and disease is vital for the studies of cancer, aging, neurodegeneration, immunology, and infectious diseases. Comprehensive and forward thinking, these books offer a valuable guide to both cellular processes while inciting researchers to explore their potentially important connections. Considering that autophagy is associated with numerous biological processes, including cellular development and differentiation, cancer (both antitumor and protumor functions), immunity, infectious diseases, inflammation, ma