Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging: Volume 5 - Role in Human Diseases

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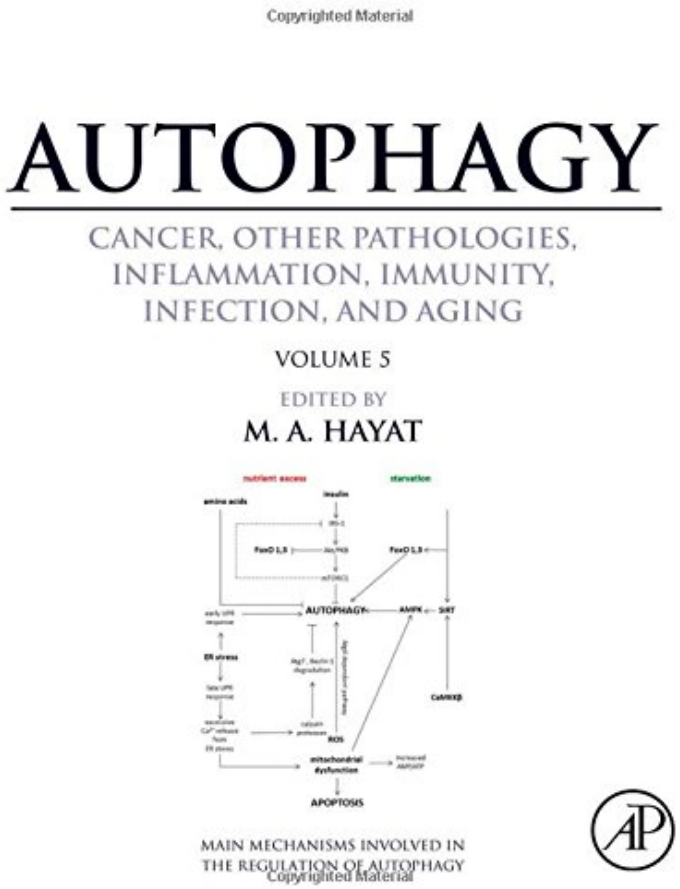

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From Academic Press : Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging: Volume 5 - Role in Human Diseases before purchasing it in order to gage whether or not it would be worth my time, and all praised Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging: Volume 5 - Role in Human Diseases:

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 up-to-date, this book offers a valuable guide to these cellular processes whilst inciting researchers to explore their potentially important

connections. Volume 5 comprehensively describes the role of autophagy in human diseases, delivering coverage of the antitumor and protumor roles of autophagy; the therapeutic inhibition of autophagy in cancer; and the duality of autophagys effects in various cardiovascular, metabolic, and neurodegenerative disorders. In spite of the increasing importance of autophagy in the various pathophysiological conditions mentioned above, this process remains underestimated and overlooked. As a consequence, its role in the initiation, stability, maintenance, and progression of these and other diseases remains poorly understood. This book is an asset to newcomers as a concise overview of the diverse disease implications of autophagy, while serving as an excellent reference for more experienced scientists and clinicians looking to update their knowledge. Volumes in the Series Volume 1: Molecular Mechanisms. Elucidates autophagys association with numerous biological processes, including cellular development and differentiation, cancer, immunity, infectious diseases, inflammation, maintenance of homeostasis, response to cellular stress, and degenerative diseases such as Alzheimers, Parkinson's, Huntington's, amyotrophic lateral sclerosis, and prion diseases. Volume 2: Role in General Diseases. Describes the various aspects of the complex process of autophagy in a myriad of devastating human diseases, expanding from a discussion of essential autophagic functions into the role of autophagy in proteins, pathogens, immunity, and general diseases. Volume 3: Role in Specific Diseases. Explores the role of autophagy in specific diseases and developments, including: Crohns Disease, Gaucher Disease, Huntingtons Disease, HCV infection, osteoarthritis, and liver injury, with a full section devoted to in-depth exploration of autophagy in tumor development and cancer, as well as the relationship between autophagy and apoptosis. Volume 4: Mitophagy. Presents detailed information on the role of mitophagy, the selective autophagy of mitochondria, in health and disease, by delivering an in-depth treatment of the molecular mechanisms involved in mitophagy initiation and execution, as well as the role of mitophagy in Parkinson Disease, cardiac aging, and skeletal muscle atrophy. Volume 5: Role in Human Diseases. Comprehensively describes the role of autophagy in human diseases, delivering coverage of the antitumor and protumor roles of autophagy; the therapeutic inhibition of autophagy in cancer; and the duality of autophagys effects in various cardiovascular, metabolic, and neurodegenerative disorders. Volume 6: Regulation of Autophagy and Selective Autophagy. Provides coverage of the mechanisms of regulation of autophagy; intracellular pathogen use of the autophagy mechanism; the role of autophagy in host immunity; and selective autophagy. Volume 7: Role of Autophagy in Therapeutic Applications. Provides coverage of the latest developments in autophagosome biogenesis and regulation; the role of autophagy in protein quality control; the role of autophagy in apoptosis; autophagy in the cardiovascular system; and the relationships between autophagy and lifestyle. Volume 8: Autophagy and Human Diseases. Reviews recent advancements in the molecular mechanisms underlying a large number of genetic and epigenetic diseases and abnormalities, and introduces new, more effective therapeutic strategies, in the development of targeted drugs and programmed cell death, providing information that will aid on preventing detrimental inflammation. Volume 9: Necrosis and Inflammation in Human Diseases. Emphasizes the role of Autophagy in necrosis and inflammation, explaining in detail the molecular mechanism(s) underlying the formation of autophagosomes, including the progression of Omegasomes to autophagosomes. Brings together a wide swathe of experts (oncologists, neurosurgeons, physicians, research scientists, and pathologists) in the field of autophagy to discuss recent developments in this rapidly-advancing fieldDiscusses the role of autophagy in cancer cell proliferation and death, and the potential of manipulation of autophagy in cancer cells as an avenue for treatmentCovers the importance of autophagy of mitochondria to cellular homeostasis; insulin secretion by pancreatic beta cells; cardiac function; atheroschlerosis; and organ tolerance to ischemic stressOrganized for readers into easy-to-access sections: general applications; role in cancer; and role in cardiovascular, metabolic, and neurodegenerative diseases

From the Back CoverUnderstanding 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 up-to-date, this book offers a valuable guide to these cellular processes whilst inciting researchers to explore their potentially important connections. Volume 5 comprehensively describes the role of autophagy in human diseases, delivering coverage of the antitumor and protumor roles of autophagy; the therapeutic inhibition of autophagy in cancer; and the duality of autophagys effects in various cardiovascular, metabolic, and neurodegenerative disorders. In spite of the increasing importance of autophagy in the various pathophysiological conditions mentioned above, this process remains underestimated and overlooked. As a consequence, its role in the initiation, stability, maintenance, and progression of these and other diseases remains poorly understood. This book is an asset to newcomers as a concise overview of the diverse disease implications of autophagy, while serving as an excellent reference for more experienced scientists and clinicians looking to update their knowledge. Key Features Brings together a wide swathe of experts (oncologists, neurosurgeons, physicians, research scientists, and pathologists) in the field of autophagy to discuss recent developments in this rapidly-advancing field Discusses the role of autophagy in cancer cell proliferation and death, and the potential of manipulation of autophagy in cancer cells as an avenue for treatment Covers the importance of autophagy of mitochondria to cellular homeostasis; insulin secretion by pancreatic beta cells; cardiac function; atheroschlerosis; and organ tolerance to ischemic stress Organized for readers into easy-to-access sections: general applications; role in cancer; and role in cardiovascular, metabolic, and neurodegenerative diseases The editor,

Dr. M. A. Hayat, is the distinguished professor at Kean University. He has published extensively in the fields of electron microscopy, tumors of the central nervous system, pediatric cancer, stem cells; cancer stem cells; epidemiology, biology, and therapy of brain metastases from primary tumors; and tumor dormancy, quiescence, and senescence. About the AuthorDr. Hayat has published extensively in the fields of microscopy, cytology, immunohistochemistry, immunocytochemistry, and antigen retrieval methods. He is Distinguished Professor, Department of Biological Sciences, Kean University, Union, New Jersey, USA.