Record Nr. UNINA9910149489103321 AMP-activated Protein Kinase / / edited by Mario D. Cordero, Benoit **Titolo** Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (X, 523 p. 55 illus., 42 illus. in color.) Experientia Supplementum, , 1664-431X; ; 107 Collana Disciplina 572.792 Soggetti Human physiology Medical biochemistry Metabolic diseases **Human Physiology** Medical Biochemistry Metabolic Diseases Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Part I: AMPK in health -- Structure and Regulation of AMPK -- AMPK Regulation of Carbohydrate Metabolism -- AMPK Regulation of Lipid Metabolism -- AMPK Regulation of Protein Metabolism -- AMPK Regulation of cell growth, apoptosis, autophagy and bioenergetics --AMPK Regulation of immunology -- AMPK and Stem Cells -- Part II: AMPK in the diseases -- AMPK in metabolic diseases -- AMPK in neurodegenerative diseases -- AMPK in cardiovascular diseases --AMPK in cancer -- AMPK in aging -- AMPK in musculoskeletal diseases and pain -- AMPK in pathogens -- Part III: Pharmacology of AMPK --Metformin, new drugs and AMPK -- Small molecules and AMPK --Nutraceutical compounds and AMPK -- Part IV: Methods of study in AMPK -- Animal models -- In vitro study methods. Sommario/riassunto AMPK has emerged as an important integrator of signals that control energy balance through the regulation of multiple biochemical pathways in eukaryotes. This book focuses on the implications of AMPK as a master metabolic regulator in diseases, including new methods and animal models. The contributions are written by leading experts in

the field and give an extensive overview of the current knowledge of AMPK biology and the role of AMPK in health and disease. .