Record Nr. UNINA9910380753403321 Cancer Cell Metabolism: A Potential Target for Cancer Therapy // **Titolo** edited by Dhruv Kumar Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2020 **ISBN** 981-15-1991-9 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XIII, 184 p. 29 illus., 22 illus. in color.) 616.99407 Disciplina Soggetti Cancer - Research Molecular biology Oncology Cancer Research Molecular Medicine Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Chapter 1: Cancer cell metabolism: Solid tumor vs non-solid tumor --Chapter 2: Reprogramming of cancer cell metabolism: Warburg and Reverse Warburg hypothesis -- Chapter 3: Molecular aspects of cancer cell metabolism: Altered glycolysis and lipid metabolism -- Chapter 4: Understanding the metabolic cross-talk between cancer cells and cancer-associated fibroblasts -- Chapter 5: Metabolic cross-talk between cancer cells and tumor microenvironment -- Chapter 6: Role of autophagy in cancer cell metabolism -- Chapter 7: Role of c-Met/HGF axis in altered cancer metabolism -- Chapter 8: Recent advances in drug development targeting cancer metabolism -- Chapter 9: Clinical relevance of "Diagnostic markers" in cancer metabolism --Chapter 10: Alterations in Metabolite-driven Gene Regulation in Cancer Metabolism -- Chapter 11: Role of Phytochemicals in Cancer Cell Metabolism Regulation. Sommario/riassunto This book illustrates various aspects of cancer cell metabolism, including metabolic regulation in solid tumours vs. non-solid tumours, the molecular pathways involved in its metabolism, and the role of the

tumour microenvironment in the regulation of cancer cell metabolism. It summarizes the complexity of cancer cell metabolism in terms of the

switch from anaerobic to aerobic glycolysis and how mitochondrial damage promotes aerobic glycolysis in cancer cells. The respective chapters provide the latest information on the metabolic remodelling of cancer cells and elucidate the important role of the signalling pathways in reprogramming of cancer cell metabolism. In addition, the book highlights the role of autophagy in cancer cell metabolism, and how metabolic crosstalk between cancer cells and cancer-associated fibroblasts promotes cancer cell progression. In closing, it summarizes recent advancements in drug development through targeting cancer metabolism.