

1. Record Nr.	UNINA9910482868703321
Autore	Le Anne
Titolo	The Heterogeneity of Cancer Metabolism // edited by Anne Le
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-65768-X
Edizione	[2nd ed. 2021.]
Descrizione fisica	1 online resource (281 pages)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1311
Disciplina	571.978 572.4
Soggetti	Cancer Metabolism Cancer - Treatment Cancer Metabolism Cancer Therapy Cancer Biology Càncer Trastorns del metabolisme Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I. Basic Metabolism of Cancer Cells -- Glucose Metabolism in Cancer the Warburg effect and Beyond -- Glutamine Metabolism in Cancer -- The Heterogeneity of Lipid Metabolism in Cancer -- Part II. Heterogeneity of Cancer Metabolism -- The Multifaceted Glioblastoma: from Genomic Alterations to Metabolic Adaptions -- The Intricate Metabolism of Pancreatic Cancers -- The heterogeneity of breast cancer metabolism for therapy -- Non-Hodgkin Lymphoma Metabolism -- The Heterogeneity Metabolism of Renal Cell Carcinomas -- The Heterogeneity Metabolism of Liver Cancer -- Different Tumor Microenvironments Lead to Different Metabolic Phenotypes -- The Intratumoral Heterogeneity of Cancer Metabolism -- Cancer Stem Cells Metabolism -- Metabolism of Immune cells in the Tumor Microenvironment -- Part III. Relationship between Cancer Cells and

Cancer-Associated Fibroblasts -- Metabolic Relationship between Cancer-Associated Fibroblasts and Cancer Cells -- Targeting Metabolic Cross Talk between Cancer Cells and Cancer-Associated Fibroblasts -- Part IV. The metabolic interplay between cancer and other diseases -- Diabetes and Cancer: the Epidemiological and Metabolic Associations -- Bridging the Metabolic Parallels between Neurological Diseases and Cancer -- Metabolic Intersection of Cancer and Cardiovascular Diseases: Opportunities for Cancer Therapy -- Index.

Sommario/riassunto

This open access volume will introduce recent discoveries in the field of cancer metabolism since the publication of the first edition in 2018, providing readers with an up-to-date understanding of developments in the field. Genetic alterations in cancer, in addition to being the fundamental drivers of tumorigenesis, can give rise to a variety of metabolic adaptations that allow cancer cells to survive and proliferate in diverse tumor microenvironments. This metabolic flexibility is different from normal cellular metabolic processes and leads to heterogeneity in cancer metabolism within the same cancer type or even within the same tumor. In this book, the authors delve into the complexity and diversity of cancer metabolism and highlight how understanding the heterogeneity of cancer metabolism is fundamental to the development of effective metabolism-based therapeutic strategies for cancer treatment. Deciphering how cancer cells utilize various nutrient resources will enable clinicians and researchers to pair specific chemotherapeutic agents with patients who are most likely to respond with positive outcomes, allowing for more cost-effective and personalized cancer treatment. This book has four major parts. Part one will cover the basic metabolism of cancer cells, followed by a discussion of the heterogeneity of cancer metabolism in part two. Part three addresses the relationship between cancer cells and cancer-associated fibroblasts, and the new part four will explore the metabolic interplay between cancer and other diseases. This new section makes the book unique from other texts currently available on the market. The second edition will be useful for cancer metabolism researchers, cancer biologists, epidemiologists, physicians, health care professionals in related disciplines, policymakers, marketing and economic strategists, etc. It may also be used in courses such as intro to cancer metabolism, cancer biology, and related biochemistry courses for undergraduate and graduate students. .
