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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	1.Staining against phospho-H2AX (-H2AX) as a marker for DNA damage and genomic instability in cancer tissues and cells -- 2. Measuring DNA replication rates in hypoxic conditions -- 3.Isolation of Proteins on Nascent DNA in hypoxia and reoxygenation conditions -- 4.In vivo interrogation of the hypoxic transcriptome of solid tumors: optimizing hypoxic probe labelling with Laser-Capture Microdissection for isolation of high-quality RNA for deep sequencing analysis -- 5.Gas chromatography coupled to mass spectrometry (GC-MS) to study metabolism in cultured cells -- 6.Probing Cancer Cell Metabolism using NMR Spectroscopy -- 7.Measuring the Impact of Microenvironmental Conditions on Mitochondrial Dehydrogenases Activity in Cultured Cells -- 8.Measuring Autophagy in the Context of Cancer -- 9.Methods for studying autophagy within the tumor microenvironment -- 10.Using 3 Dimensional Culture (Spheroids) as an in vitro Model of Tumour Hypoxia -- 11.Isolation of Glioma Initiating Cells for Biological Study -- 12.Isolation of mouse and human tumor associated macrophages -- 13.Mouse models of brain metastasis for unravelling tumour progression -- 14.Quantification of lung metastases from in vivo

mouse models -- 15.A multimodal data analysis approach for targeted drug discovery involving topological data analysis (TDA) -- 16.Efficient protocol for the identification of hypoxic cell radiosensitisers.

Sommario/riassunto

This volume covers the topics presented at the 3rd International Conference on Tumor Microenvironment and Cellular Stress by an international community of researchers. The conference brings together scientists to discuss different cellular and animal models of tumor microenvironment study and identify common pathways that are candidates for therapeutic intervention; stimulate collaboration between groups that are more focused on elucidation of biochemical aspects of stress biology (e.g., HIF regulation) and groups that study the pathophysiological aspects of stress pathways or engaged in drug discovery; and critically evaluate novel targets for imaging or therapeutic intervention that would be of use to the tumor microenvironment community and pharmaceutical industry.
