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Titolo	Bioengineering and Cancer Stem Cell Concept / / by Mirjana Pavlovic, Bela Balint
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Descrizione fisica	1 online resource (152 p.)
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Normal Stem Cell: Entity or State? -- Normal Stem Cells: Biology, Collection/Harvesting, and Ex Vivo Manipulations -- A Concept of Cancer Stem Cells: Entity and Theories -- Cancer Stem Cell Markers: Classification and Their Significance in Cancer Stem Cells -- Epigenetic Mechanisms Involved in Cancer Stem Cell Profiles -- Mitochondrial Respiration of Cancer Stem Cells -- Metabolism in Cancer Stem Cells -- Different Approaches for Anticancer/Antitumor Therapy -- Targeted Cancer Stem Cell Therapy -- Bioengineered CSC Tumors -- Summary on the Role of Bioengineering in the Cancer Stem Cell Paradigm.
Sommario/riassunto	This book explores the role of cancer stem cells in the diagnosis, treatment, and cure of cancers. This book also tackles novel methodology for cancer stem cell marker identification, cancer stem cell respiration and metabolism, genetic and epigenetic mechanisms including DNA methylation, and mi-RNA assemble. It also emphasizes the role of Bioinformatics techniques, which provide a novel methodology for modeling cancer outcomes. The authors investigate the difference between cancer stem cells and normal stem cells, along

with the concept of targeted cancer stem cell therapy. Although the theoretical explanations of cancer stem cell involvement in leukemia and solid cancers are controversial, there is now little doubt that cancer stem cells exist within otherwise heterogeneous cancer cell population. The brief examines the two leading theories, hierarchical and the stochastic/cancer stem cell model. Researchers, professors and advanced-level students focused on bioengineering and computer science will find this book to be a valuable resource. It is a very good source of critical references for understanding of this problem, and a useful tool for professionals in related fields.

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