1. Record Nr. UNINA9910298292303321

Titolo	Stem Cell Biology in Neoplasms of the Central Nervous System / / edited by Moneeb Ehtesham
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-16537-2
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (200 p.)
Collana	Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 853
Disciplina	571.6 610 612.8 614.5999
Soggetti	Cancer - Research Stem cells Neurosciences Cancer Research Stem Cells
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Regulation of Subventricular Zone-Derived Cells Migration in the Adult Brain -- The SVC and Its Relationship to Stem Cell Based Neuro-oncogenesis. - Isolation and characterization of stem cells for human central nervous system malignancies. - The role of stem cells in pediatric central nervous system malignancies. - Laboratory models for central nervous system tumor stem cell research. - Radiation Therapy for Glioma Stem Cells -- Chemoresistance and chemotherapy targeting stem-like cells in malignant glioma -- Immunobiology and Immunotherapeutic targeting of glioma stem cells -- Emerging strategies for the treatment of tumor stem cells in central nervous system malignancies.
Sommario/riassunto	This volume presents the most current reviews on how cancer stem cells (CSCs) hypothesis dictates that the continued proliferation of a tumor is dependent on a sub-population of self-renewing and asymmetrically dividing neoplastic stem cells that supply a largely

differentiated tumor. This volume provides a comprehensive overview of the characteristics of CSCs, their role in central nervous system (CNS) tumors, and the recent CSC-specific treatment modalities being used. The emerging focus on CSCs in brain tumors represents a paradigm shift in our understanding of the pathogenesis of these neoplasms. Importantly, the realization that a distinct sub-population of cells contributes disproportionately to the growth and sustenance of central nervous system tumors has important implications for the treatment of such tumors. To treat CNS tumors, there is now a growing need to treat CSCs to achieve adequate tumor control.