

1. Record Nr.	UNINA9910988396003321
Titolo	Brain Tumors: An Interdisciplinary Approach // edited by Nima Rezaei
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031874376 3031874374
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (XI, 667 p. 57 illus., 45 illus. in color.)
Collana	Interdisciplinary Cancer Research, , 2731-457X ; ; 13
Disciplina	571.978 616.994
Soggetti	Cancer Cancer - Treatment Oncology Medical radiology Cancers Cancer Therapy Radiation Oncology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Interdisciplinary Approach in Neurological Cancers -- The Immunology of Brain Tumors -- Inherited Genetics Syndromes Associated with Central Nervous System Tumors -- The Impact of Epigenetic Methylation on Gliomagenesis: An Understanding and Therapeutic Approaches -- Precision Medicine in Brain Tumors: New Approaches -- Neurosurgical Management of Malignancy: The Role of Biopsy and Resection -- Radiosurgery in the Treatment of Primary Brain Neoplasms -- Intraoperative Techniques for Imaging-Guided Surgery of Glioma -- Novel Approaches to Bypassing the Blood-Brain Barrier for Drug Delivery to Brain Tumors -- Crossing Blood Brain Barrier: Advancing Immunotherapy for Pediatric Brain Tumors -- The Evolving Landscape of Monocyte/Macrophage System in Glioma -- The Link Between Excitotoxicity and Glioblastoma Multiforme -- Pediatric Low-Grade Gliomas: "Ta panta rhei" -- Pediatric Infratentorial Tumors' Treatment in the Molecular Era -- Immunotherapeutic Strategies for Glioma

Treatment -- Glioblastoma Antigen Expression for Tumor Targeting -- Unleashing the Potential of Natural Killer Cells in Immunotherapy for Glioblastoma and Brain Tumors -- Mechanisms of Chemoresistance in High-Grade Gliomas -- Cancer-Related Stroke. A Narrative Review About Pathomechanisms, Epidemiology and Neuroimaging Issues -- Potential Role of Artificial Intelligence in the Treatment of Glioblastoma in Children and Adults.

Sommario/riassunto

The “Brain Tumors: An Interdisciplinary Approach” is the thirteenth volume of the “Interdisciplinary Cancer Research” series, publishes comprehensive volume on diagnosis and treatment of brain tumors. It starts with a general title on an interdisciplinary approach in brain tumors. Inherited genetics syndromes associated with central nervous system tumors as well as the impact of epigenetic methylation on gliomagenesis were explained. Then new approaches on precision medicine in brain tumors are discussed. After discussion on neurosurgical management of brain tumors, neuroimaging and radiosurgery of brain tumors are explained. Novel approaches to bypassing the blood-brain barrier for drug delivery to brain tumors are also discussed. After presentation of pediatric low-grade gliomas, treatment of glioblastoma is the subject of other chapters. The potential role of artificial intelligence in the treatment of glioblastoma is discussed in the last chapter. This is the main concept of Cancer Immunology Project (CIP), which is a part of Universal Scientific Education and Research Network (USERN). This interdisciplinary book will be of special value for neurosurgeons and oncologists who wish to extend their knowledge on brain tumors.
