



Molecular Mechanisms and Therapies of Glioblastoma

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Message from the Guest Editors

Glioblastoma multiforme (GBM) is a rare cancer which, being responsible for 4% of all cancer deaths with a 5-year survival of 2%, is one of the deadliest human cancers with a median survival ranging from 14 to 30 months depending on the molecular subtype of the tumor. DNA methylation plays a key role in the pathogenesis and progression of GBM. Indeed, GBM harbors many genetic alterations that interfere with numerous cancer-related pathways. Furthermore, some subtypes of GBM are resistant to the action of temozolomide (TMZ), the most widely used alkylating agent in the treatment of GBM, as they have the promoter of the protein O6-methylguanine DNA methyltransferase (MGMT). Epigenetic modifications are gaining strong relevance in glioblastoma because they can be both clinical biomarkers and potential drug targets, as suggested by many preclinical studies.

The purpose of this Special Issue is to highlight new advances in molecular mechanisms and new therapeutic approaches to eradicate GBM in order to improve our current understanding of the molecular and cellular mechanisms of GBM initiation, progression and therapy resistance.





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Message from the Editor-in-Chief

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