

## Recent Advancement in Dendrimer Based Nanotechnology for the Treatment of Brain Tumor

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**Abstract :** Brain tumor is metastatic neoplasm of central nervous system, in most of cases it is life threatening disease with low survival rate. Despite of enormous efforts in the development of therapeutics and diagnostic tools, the treatment of brain tumors and gliomas remain a considerable challenge in the area of neuro-oncology. The most reason behind of this the presence of physiological barriers including blood brain barrier and blood brain tumor barrier, lead to insufficient reach ability of therapeutic agents at the site of tumor, result of inadequate destruction of gliomas. So there is an indeed need empowerment of brain tumor imaging for better characterization and delineation of tumors, visualization of malignant tissue during surgery, and tracking of response to chemotherapy and radiotherapy. Multifunctional different generations of dendrimer offer an improved effort for potentiate drug delivery at the site of brain tumor and gliomas. So this article emphasizes the innovative dendrimer approaches in tumor targeting, tumor imaging and delivery of therapeutic agent.

**Keywords :** blood brain barrier, dendrimer, gliomas, nanotechnology

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