

ABSTRACT

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Emerging Epigenetic Therapies for Brain Tumors.

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Malignant brain tumors are among the most intractable cancers, including malignancies such as glioblastoma, diffuse midline glioma, medulloblastoma, and ependymoma. Unfortunately, treatment options for these brain tumors have been inadequate and complex, leading to poor prognoses and creating a need for new treatment modalities. Aberrant epigenetics define these types of tumors, with underlying changes in DNA methylation, histone modifications, chromatin structure and noncoding RNAs. Epigenetic-targeted therapies are an alternative that have the potential to reverse the epigenetic deregulation underpinning brain malignancies. Various drugs targeting epigenetic regulators have shown promise in preclinical and clinical testing. In this review, we highlight some of the recent emerging epigenetic targeted therapies for brain tumors being evaluated in the discovery phase and in clinical trials.

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