Review Prog Mol Biol Transl Sci. 2024:204:133-161. doi: 10.1016/bs.pmbts.2023.12.001.

Epub 2023 Dec 29.

Application of RNA-based therapeutics in glioma: A review

Mehdi Sanati 1 , Amir R Afshari 2 , Seyed Sajad Ahmadi 3 , Tannaz Jamialahmadi 4 , Amirhossein Sahebkar 5

Affiliations PMID: 38458736 DOI: 10.1016/bs.pmbts.2023.12.001

Abstract

Despite the extensive advancements made in the field of cancer therapy, the outlook of individuals suffering from glioblastoma multiforme remains highly detrimental. The absence of specific treatments for cancerous cells significantly hinders the effectiveness of conventional anticancer techniques. Multiple research studies have demonstrated that the suppression of specific genes or the augmentation of therapeutic proteins through RNA-based therapeutics may represent a valuable approach when combined with chemotherapy or immunotherapy. In recent years, there has been a significant increase in the application of RNA therapeutics in conjunction with chemotherapy and immunotherapy. This emerging field has become a prominent area of research for advancing various types of cancer treatments. The present investigation provides an in-depth overview of the classification and application of RNA therapy, focusing on the mechanisms of RNA antitumor treatment and the current status of clinical studies on RNA drugs.

Keywords: Antitumor; Cancer; Glioblastoma multiforme; RNA.

Copyright © 2024. Published by Elsevier Inc.

PubMed Disclaimer