Review Expert Opin Biol Ther. 2023 Nov 13:1-14. doi: 10.1080/14712598.2023.2282729.

Online ahead of print.

Antibody drug conjugates for glioblastoma: current progress towards clinical use

Hui K Gan [1 2 3 4 5], Sagun Parakh [1 2 3 4], Laura D Osellame [2 4 6], Lawrence Cher [3], Anthony Uccellini [3], Umbreen Hafeez [1 2 3], Siddharth Menon [1 2 3 4], Andrew M Scott [2 4 5 7]

Affiliations

PMID: 37955063 DOI: 10.1080/14712598.2023.2282729

Abstract

Introduction: Antibody drug conjugates (ADCs) are now a proven therapeutic class for many cancers, combining highly specific targeting with the potency of high effective payloads. This review summarizes the experience with ADCs in brain tumors and examines future paths for their use in these tumors.

Areas covered: This review will cover all the key classes of ADCs which have been tested in primary brain tumors, including commentary on the major trials to date. The efficacy of these trials, as well as their limitations, will put in context of the overall landscape of drug development in brain tumors. Importantly, this review will summarize key learnings and insights from these trials that help provide the basis for rational ways in which these drugs can be effectively and appropriate developed for patients with primary brain tumors.

Expert opinion: ADC development in brain tumors has occurred in two major phases to date. Key learnings from previous trials provide a strong rationale for the continued development of these drugs for primary brain tumors. However, the unique biology of these tumors requires development strategies specifically tailored to maximize their optimal development.

Keywords: Brain tumours; Gliomas; antibody drug conjugates; biomarkers; blood–brain barrier.