

## ABSTRACT

Cancer Treat Res. 2022 May 13;183:161-184. doi: 10.1007/978-3-030-96376-7\_5.

Chimeric Antigen Receptor (CAR) T Cell Therapy for Glioblastoma.

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Genetic modification of T cells to express chimeric antigen receptors (CARs) has yielded remarkable clinical outcomes and initiated a novel era for cancer immunotherapy. The impressive clinical responses seen in hematologic malignancies have led to the investigation of CAR T cells in solid tumors but attaining similar results has been challenging to date. Glioblastoma (GBM) presents a particularly challenging malignancy for treatment and despite some progress in treatments over the past decade, prognosis remains poor for the vast majority of patients. However, recent data support the clinical efficacy and safety of CAR T cell therapy in GBM. In this review, common challenges associated with treating GBM will be discussed in addition to how CAR T cells can overcome such barriers. Additionally, emerging techniques of optimizing CAR T cell therapy for GBM will be emphasized, highlighting the prospective promise of cellular immunotherapy.

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DOI: 10.1007/978-3-030-96376-7\_5

PMID: 35551659 [Indexed for MEDLINE]