

Review      *Biotechnol Prog.* 2023 May 17;e3356. doi: 10.1002/btpr.3356. Online ahead of print.

# An updated overview of the application of CAR-T cell therapy in neurological diseases

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PMID: 37198722    DOI: [10.1002/btpr.3356](https://doi.org/10.1002/btpr.3356)

## Abstract

Genetically modified immune cells, especially CAR-T cells, have captured the attention of scientists over the past 10 years. In the fight against cancer, these cells have a special place. Treatment for hematological cancers, autoimmune disorders, and cancers must include CAR-T cell therapy. Determining the therapeutic targets, side effects, and use of CAR-T cells in neurological disorders, including cancer and neurodegenerative diseases, is the goal of this study. Due to advancements in genetic engineering, CAR-T cells have become crucial in treating some neurological disorders. CAR-T cells have demonstrated a positive role in treating neurological cancers like Glioblastoma and Neuroblastoma due to their ability to cross the blood-brain barrier and use diverse targets. However, CAR-T cell therapy for MS diseases is being researched and could be a potential treatment option. This study aimed to access the most recent studies and scientific articles in the field of CAR-T cells in neurological diseases and/or disorders.

**Keywords:** CAR-T cells; GB; MS; NB; neurological disorders.

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