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## **Episomal T Cell Receptor engineered Natural Killer Cells for the Treatment of Glioblastoma**

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The goal of EPICURE-GLIO is to develop a novel, locally restricted immunotherapy for glioblastoma patients. Glioblastoma is known for its highly immunosuppressive tumor microenvironment, and the project therefore pursues a combined strategy: natural killer (NK) cells are equipped with a T-cell receptor to specifically recognize and eliminate tumor cells. First, the focus is on using T-cell receptors that recognize a characteristic glioblastoma antigen. Second, the tumor's defense mechanism, which it uses to suppress the immune system, will be investigated.

The project's three core objectives are generating T-cell receptor-modified NK cells, comparing these cells with a retroviral variant in preclinical models, and analyzing potential mechanisms by which the tumor could evade therapy and recur. Furthermore, different routes of administration will be tested.

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