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Gene-edited Autologous Neoantigen-targeted NeoTCR-P1 T-cells

National Cancer Institute

Source

National Cancer Institute. *Gene-edited Autologous Neoantigen-targeted NeoTCR-P1 T-cells*. NCI Thesaurus. Code C161651.

A preparation of autologous CD4- and CD8-positive T-lymphocytes that have been engineered with site-specific nucleases to suppress the expression of most endogenous forms of the T-cell receptor (TCR) and promote expression of a single, native TCR targeting a neoepitope that is presented on the surface of a patient's tumor cells, with potential immunostimulating and antineoplastic activities. Upon reintroduction into the patient, the gene-edited autologous neoantigen-targeted NeoTCR-P1 T-cells recognize and bind to tumor cells expressing the targeted neoantigen, resulting in a cytotoxic T-lymphocyte (CTL)-mediated immune response against the patient's tumor cells.