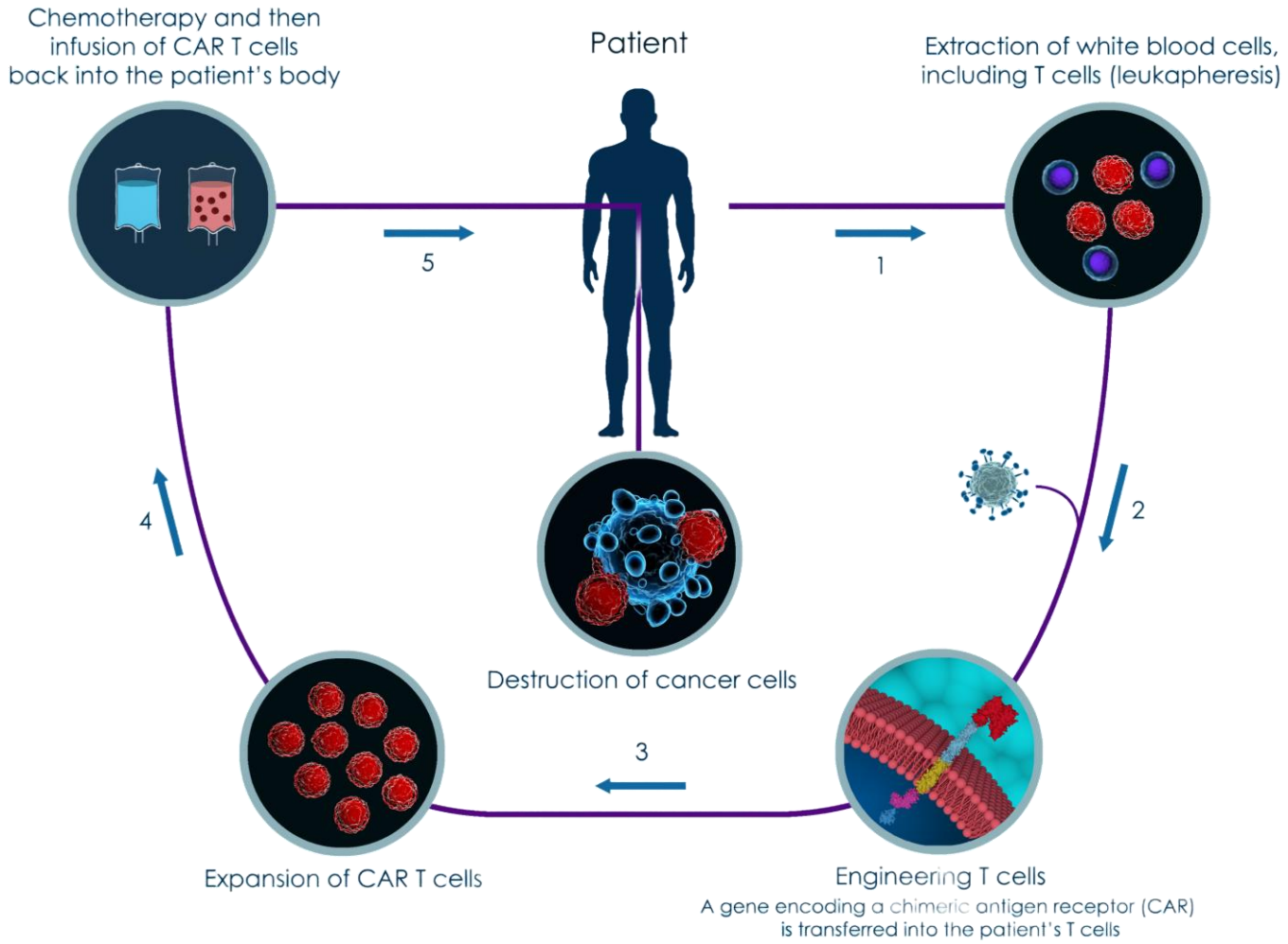
CAR-T therapies are FDA approved for certain blood cancers

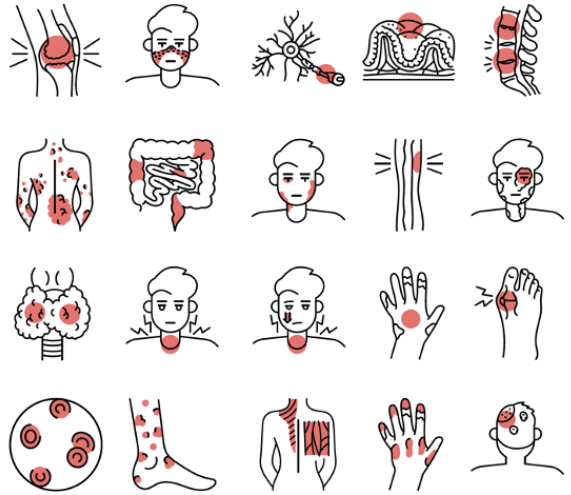
CAR-Ts are a class of therapy that uses the patient's own immune system to fight cancers or autoimmune disease. The first CAR-T was approved in 2017 to treat patients with leukemia, a type of blood cancer that affects B cells. CAR-Ts are designed to deplete, or target and kill, the cancer-causing B cells. Since 2017, over 30,000 patients have been treated with various CAR-Ts.

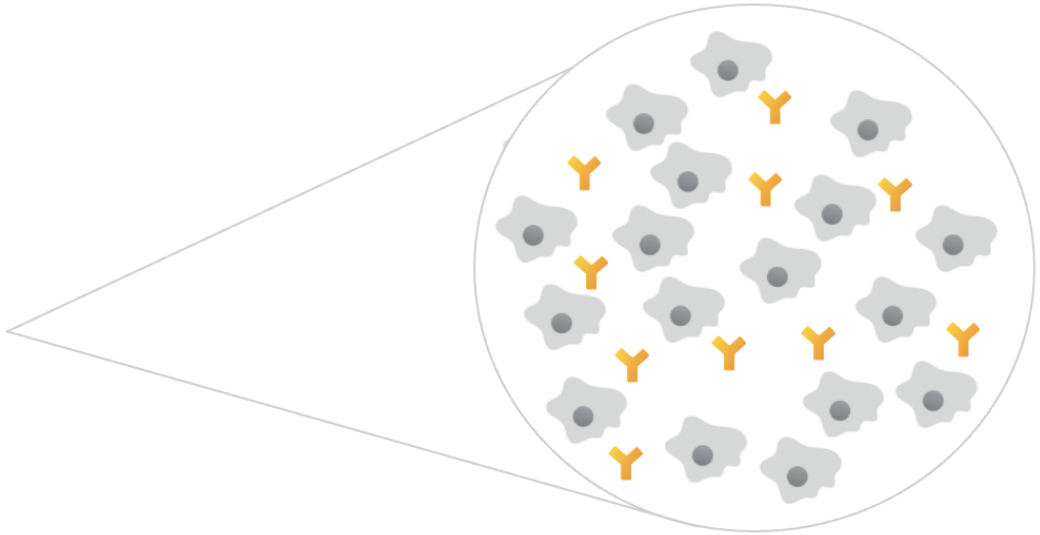


Synthekine

CD19 CAR-T cell therapies are being studied in patients with autoimmune diseases

More recently, CAR-Ts have been studied in the treatment of autoimmune disease such as lupus, systemic sclerosis, and rheumatoid arthritis. The principle is the same as in cancer. In autoimmune diseases, CAR-Ts are designed to deplete the B cells that cause autoimmune disease.

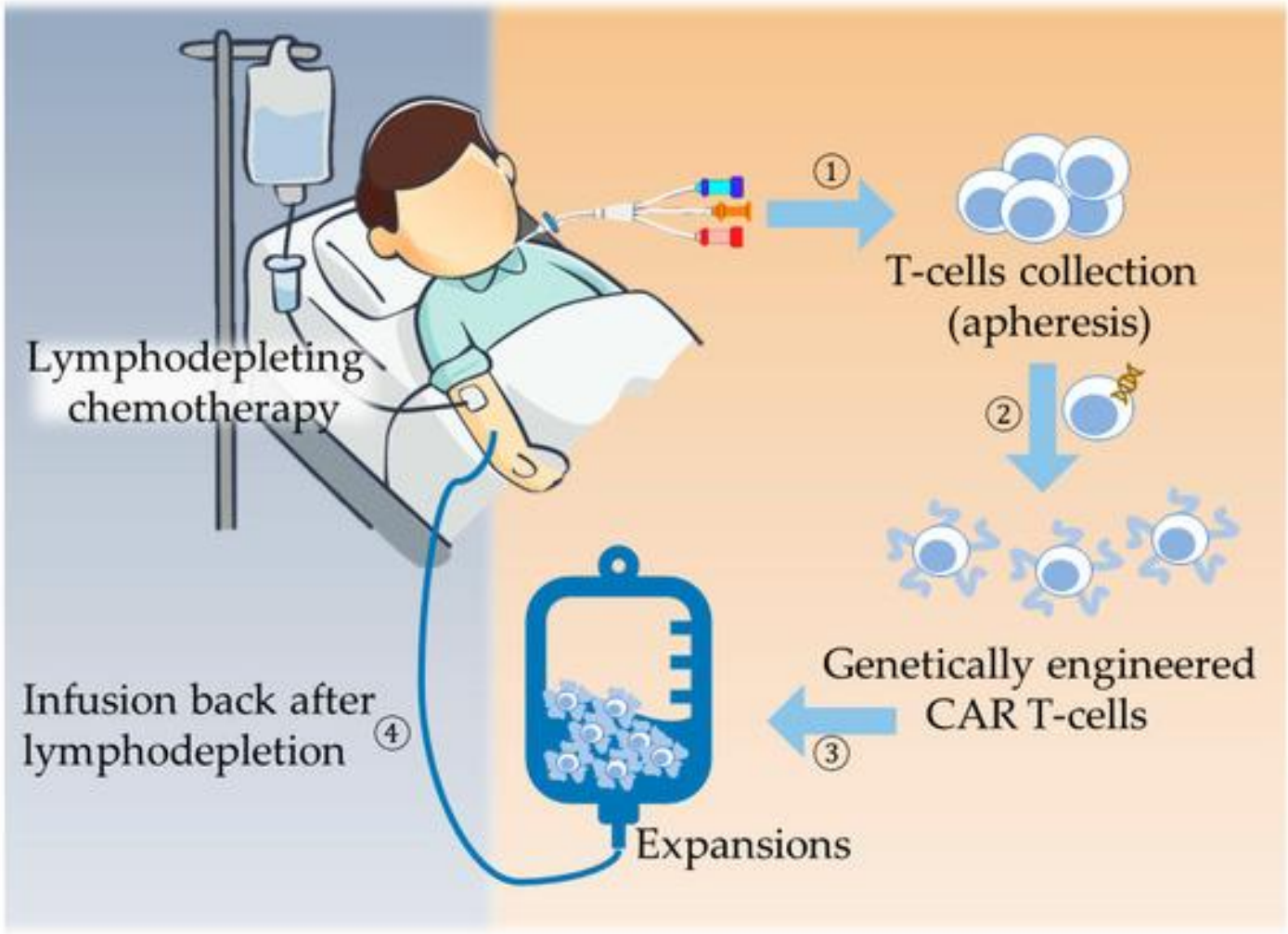




- Autoantibodies produced by B cells can be associated with organ damage from autoimmune disease
- CD19 CAR T cell therapy is being studied in patients with autoimmune disease as a new way to target B cells

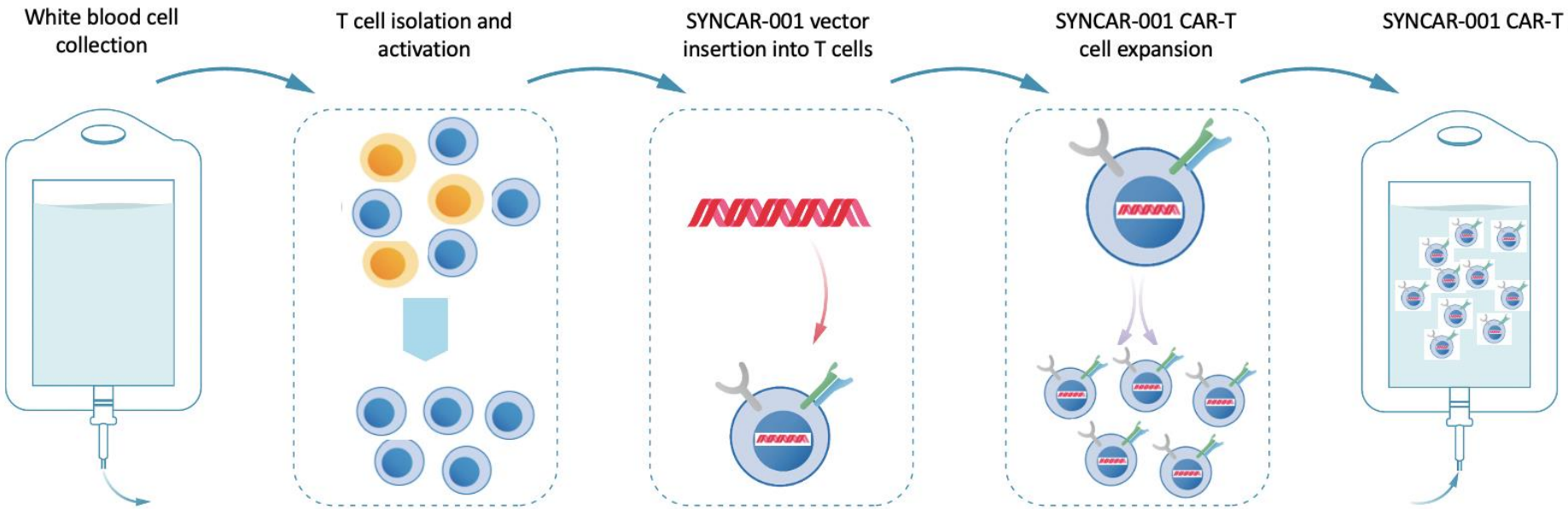
Traditional CAR-T treatment requires lymphodepleting chemotherapy

Traditional CAR-T therapy requires lymphodepleting chemotherapy as part of the treatment. Lymphodepleting chemotherapy reduces the patient's own immune cells prior to the dosing of the CAR-T to give the CAR-T therapy a better opportunity to expand and persist in the patient. Lymphodepleting chemotherapy carries with it some toxicities.



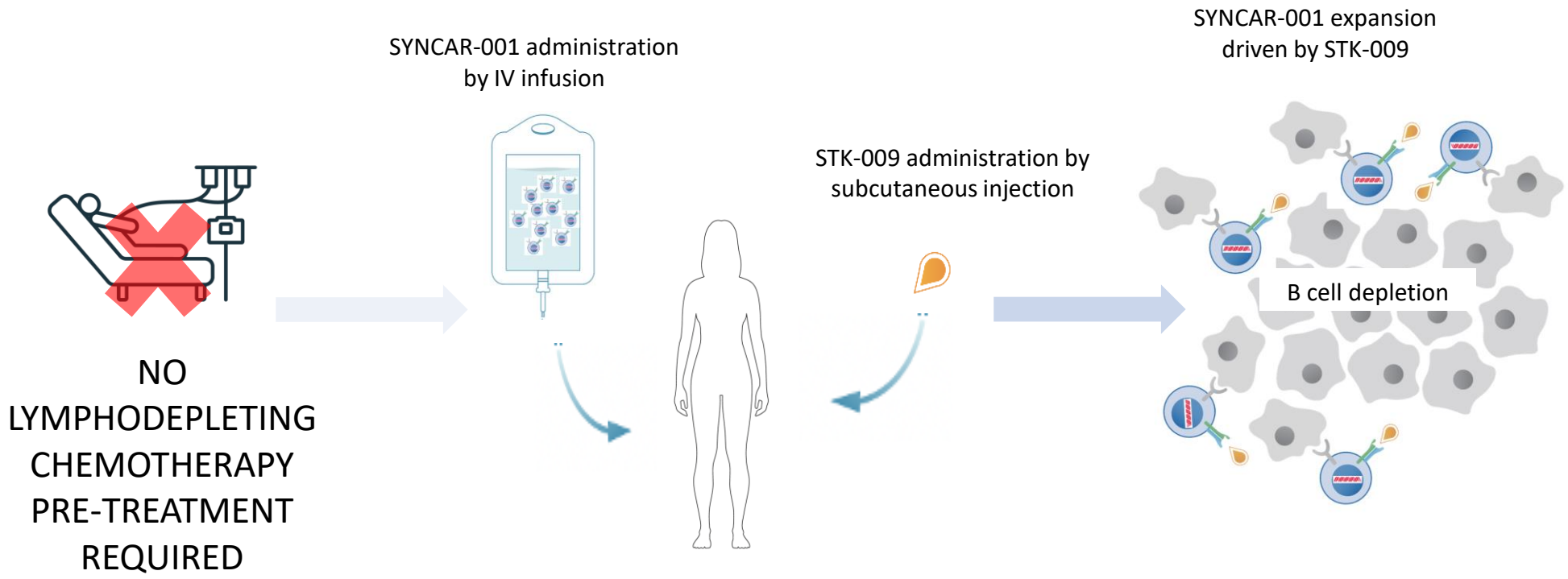
Synthekine

SYNCAR-001 is made from a patient's own T cells



Like most other CAR-Ts, SYNCAR-001 is made from the patient's own T cells. Cells are collected, shipped to a manufacturing site that has expertise in CAR-T production, modified to express the CAR on the patient's own T cells, and sent back to the clinical site. The whole process takes about a month.

SYNCAR-001 + STK-009 is given without lymphodepleting chemotherapy



Unlike traditional CAR-Ts, SYNCAR-001 is given **without lymphodepleting chemotherapy**. Instead, the patient receives weekly injections of STK-009, which is designed to help expand and persist SYNCAR-001.

Neither SYNCAR-001 or STK-009 has been approved by the FDA. SYNCAR-001 + STK-009 is currently in a Phase 1 clinical study.