MIRCOD

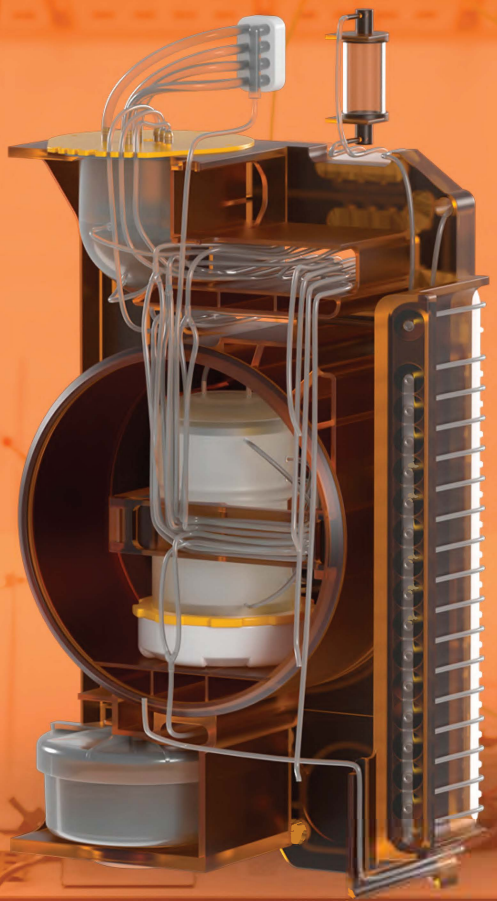
TECHNOLOGY

Correction of defects caused by changes in the structure of DNA or DNA damages of viral etiology, changing of cell functions is a new and rapidly developing field of gene engineering. The PoC station was designed for adoptive cellular immunotherapy (ACI) carried out by transfer of T-cells. ACI includes ex vivo expansion of tumor cell specific T-cells and further reinfusion into a patient's organism. According to the experts' point of view, this therapy is one of the most promising methods discovered over the past decade allowing to overcome oncological and autoimmune diseases. Biotechnological and medical methods, used during the operation of the PoC, are aimed at introduction of changes into the DNA of somatic human cells. Treatment of haematological malignancies using the T-cells with chimeric antigen receptors (CAR) demonstrated unprecedented effectiveness.

APPLICATION

The developed automatic station standardizes and reduces the duration of direct human involvement in the process of CAR-T cells production, as well as increases reproducibility. As a result, the CAR-T therapy can be provided to a larger number of people. In order to make the therapy methods based on CAR-T cells effective and easy to use, one needs a quick and simple way to multiply the number of genetically modified T-lymphocytes. The station is installed in any large medical institution and allows to create a product using the CAR-T cells. The medicine is created by selection of CD4-CD8 cells, lentiviral transduction and expansion of the T-cells using IL-7/IL-15 from the patients, who have undergone treatment.

POINT OF CARE CAR-T / CAR-NK MANUFACTURING



Toronto
401-1110 Finch Ave West
+1 (647) 339-9047

Kazan
Fedoseevskaya street 58
+7 (843) 260-9993

Boca Raton
433 Plaza Real #275
+1 (772) 307-9921

MIRCOD
www.mircod.com