

An Improved CAR-T Like Cells Immunotherapy: Eliminating Antibody Specific Tailoring (Ramot)

code: 2-2019-1254

[Yaron CARMI](#), T.A.U Tel Aviv University, Medicine-Sackler Faculty, Pathology

An Improved CAR-T Like Cells Immunotherapy: Eliminating Antibody Specific Tailoring
Dr. Yaron Carmi & Dr. Peleg Rider

An immunotherapy, which improves over CAR-T. It is an add-on therapy which fitting multiple Abs requiring no tailored recognition element like CAR-T. A single product fits many antibodies in multiple blood and solid cancerous indications. The product is a construct for engineering the patient's own T-cells. The first indication is melanoma B16.

BACKGROUND

Some oncological patients respond well to Ab based therapy while others do not. The inspiration for the development of this technology was a strong correlation between a positive clinical outcome of an Ab based immunotherapy and a rise in CD4 cells in patients. It led the researchers to discover a small cytotoxic sub-population of CD4 cells. This type of CD4 cells sub-population is rare and cannot be easily grown. The researchers created engineered CD4 cells mimicking the native cytotoxic CD4 cells. These engineered cytotoxic CD4 cells should boost the positive treatment outcome of Ab based oncology treatments.


THE PRODUCT

The product is a construct and method to engineer CD4 T-cells from a patient to recognize the constant region (Fc) of IgG type antibodies. These engineered cytotoxic CD4 T-cells will be an add-on therapy to mAb oncological treatments for blood & solid tumors. Expected advantages of the product include 1. Addressing solid tumors 2. On/off switch for limiting on-target off-tissue effects by withdrawing the mAb administration 3. Higher specificity and affinity of CD64 compared to other Fc gamma receptors, which may translate to lower treating doses and less adverse events.

INTELLECTUAL PROPERTY

Ramot filed a provisional patent on composition of matter & a treatment method on 04/2019.

Contact for more information:

Inbal Landsberg , BD life sciences, 04-6364069

Ramot at Tel Aviv University Ltd. P.O. Box 39296, Tel Aviv 61392 ISRAEL
Phone: +972-3-6406608
Fax: +972-3-6406675