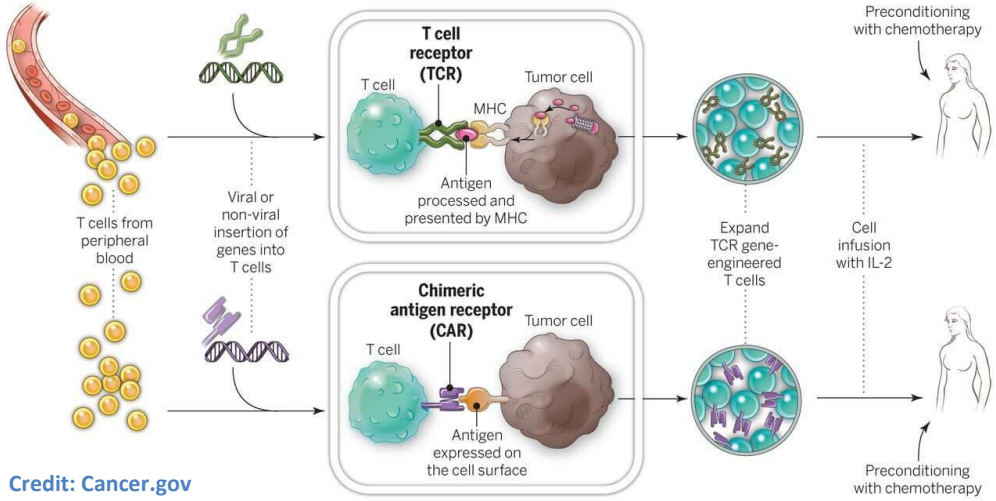
FDA Approves Personalized Immuno-Therapy for Cancer

On 18th Oct 2017, U.S. Food and Drug Administration (FDA) announced that it has approved Chimeric Antigen Receptor (CAR) T-Cell therapy for Non-Hodgkin's Lymphoma. This treatment is being introduced by California based Gilead science company under the drug label of Yescarta. In six months long clinical trial, this treatment has been tested on 101 patients, among which 82 patients has their tumors shrink half to its size while in 36 % of the patients saw their cancer completely disappear.



CAR–T-cell immunotherapy involves collecting, using patients' own immune cells (White Blood cells) and engineering them in such a way that it targets the cancer specific cell types. Car-T cell therapy is a form of new emerging immunotherapeutic approach aka Adoptive Cell Transfer (ACT).

This is the second CAR-T cell therapy approved by FDA. First was Kymriah, introduced by Novartis in August 2017 for Acute Lymphoblastic Leukemia (ALL) for children. Both these treatments come with their own baggage of cautions such as severe anemia, brain toxicity, and therapy related complications. Both these therapies can trigger cytokine storm termed as "cytokine release syndrome" and therefore, will carry a FDA warning tied to it.

Gilead therapy costs $373,000 for a single dose and Novartis therapy costs about $475,000 per patient. Many believe that this will rekindle the discussion about the escalating cost of these personalized therapies*.

*A form of medicine that uses information about a person's genes, proteins, and environment to prevent, diagnose, and treat disease (National Cancer Institute).