



CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
RP110172

Project Title:
Chemo-immunotherapy for Relapsed or Refractory Nasopharyngeal
Carcinoma

Award Mechanism:
Individual Investigator

Principal Investigator:
Louis, Chrystal U

Entity:
Baylor College of Medicine

Lay Summary:

Immunotherapy uses the body's own defenses to fight cancer and disease. There are 3 major types of immunotherapy used to treat cancer: monoclonal antibodies like Herceptin for breast cancer, cancer vaccines, and cellular therapy. For many years, our research team has used cellular therapy with special T cells taught to recognize structures on the tumor as foreign, and then kill the "foreign" cells. We have used this approach to successfully treat several tumors including nasopharyngeal cancer (NPC). T cell therapy seems to work best if patients don't have a lot of disease when their T cells are given back. So we have created a new clinical trial that treats patients with chemotherapy before we give them their T cells. This trial is specific for patients who have NPC that has been caused by the Epstein Barr virus (EBV) as some of our patients have had their cancer decrease or go away after being treated with T cells taught to recognize and kill EBV in their tumors. On this trial, patients that have EBV-positive NPC, that has either come back or never gone away after standard treatment, will be given 4 rounds of chemotherapy and then EBV-specific T cells. We hope that giving chemotherapy before immunotherapy will decrease the amount of disease the T cells need to fight and therefore allow them to work better. We will monitor all patients for disease response, look for EBV-specific T cells in the blood over time, and see if there are other markers in the blood that will help us determine who will or will not respond to this form of treatment. If successful, this form of treatment should be easy to test in lymphoma and other solid tumors that can be targeted by T cells.