



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Award ID:
RP100457

Project Title:
Translational development of novel lymphoma vaccine therapy

Award Mechanism:
Individual Investigator

Principal Investigator:
Kwak, Larry

Entity:
The University of Texas M.D. Anderson Cancer Center

Lay Summary:

The overall goal of our project is to develop a lymphoma vaccine for clinical study. Our vaccine strategy aims to activate immune cells that can recognize and eventually eliminate tumor cells. Lymphoma uniquely expresses a tumor-specific antigen termed "idiotype." By genetic modification, we linked this lymphoma antigen with a type of small proteins, called chemokine receptor ligands, which are able to recruit immune cells. When given to animals, these vaccines profoundly induced tumor protection in lymphoma mouse models. In the proposed project, we will perform a series of animal experiments to choose the best vaccine formulation for a future clinical trial with lymphoma patients. We will also try to understand how the vaccine provokes the immune system to kill tumor cells. The selected vaccine should demonstrate the most potent antitumor effect that is mediated by immune cells. We will initiate the clinical trial to determine if the vaccine is effective in patients with lymphoma. Collectively, these studies will enable us to develop a more potent lymphoma vaccine and translate it into clinical application.