



CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
DP160057

Project Title:
Clinical Evaluation of a Novel T Cell Therapy (BPX-501) for the Treatment
of Children and Adults with AML

Award Mechanism:
Texas Company Product Development Awards

Principal Investigator:
Woodard, Joseph

Entity:
Bellicum Pharmaceuticals, Inc.

Lay Summary:

Many patients with leukemia are cured by a stem cell transplant after intense chemotherapy. However, cancer relapse, infection, and graft versus host (GvHD) are common in the months after a transplant. The problem is that harmful T cells in the transplant cannot be separated from essential, helpful T cells that kill residual cancer and help stem cells become established. Harmful T cells attack the skin, intestines, and the liver, which they see as foreign. For these reasons, many cancer patients without a matched donor cannot receive a transplant, and those that do risk severe, often fatal complications.

Bellicum Pharmaceuticals has developed a revolutionary new T-cell therapy (BPX-501) to solve the critical problems associated with non-matched transplants. Bellicum inserts a "safety switch" into donor T-cells, which allows the physician to kill harmful T cells while preserving those helpful T-cells that protect from infection, assist the new stem cells, and kill residual cancer. This project will test a new combination therapy consisting of BPX-501 along with donor stem cells that have been specially prepared to maintain certain beneficial cells that can work together with BPX-501. Bellicum will treat adults and children with a very serious form of leukemia called AML, who have failed conventional therapy and have little chance for cure. The results of this trial could revolutionize cancer treatment and provide hope to many patients with no current alternatives.