

## Nontechnical Summary

B cell malignancies such as non-Hodgkin lymphoma and B-CLL should stimulate the immune system very well since they express specific targets on their surface. However, the tumor cells lack other critical molecules required to stimulate the immune system. It is the purpose of this protocol to overcome this deficiency. We plan to introduce two genes into the malignant cells which will work together to stimulate an immune response. The first of these is CD40L which allows B cell malignancies to express molecules that are stimulatory to the immune system, and the second is IL2 which has been shown in animal and human preclinical models to further enhance the effects of CD40L by amplifying the induced antitumor immune response. Both genes are introduced into the malignant cell after they have been cultured with human embryonic fibroblasts cells, to make them more infectable with the adenoviral vectors we use. In this Phase I study we will inject increasing numbers of gene modified tumor cells to see how safe this approach is in patients with advanced lymphoma and chronic lymphocytic leukemia and discover whether an effective antitumor immune response can be generated.