Title: Development of Translational Drugs for Vitiligo and Melanoma

The incidence of death from melanoma cancer is increasing in the U. S. and worldwide. There are several treatment options available, but all are inadequate and eventually relapse to cancer occurs. New approaches are needed. We are developing a novel approach for the melanoma cancer treatment. This approach involves the design and synthesis of bi-functional ligands that specifically target melanoma cancer cells, and also critical signaling pathways in melanoma cancer cells that lead to cell death and that is highly specific without relapse. The newly designed ligands can be used for the treatment of vitiligo in clinical trials.