THOR-707

THOR-707 Not Alpha IL-2

THOR-707 as a Single Agent

THOR-707, a “not-alpha” Synthorin™ of interleukin-2 (IL-2), for the treatment of solid tumors at the Society for Immunotherapy of Cancer (SITC). THOR-707, a variant of IL-2, is in development in multiple tumor types as a single agent and in combination with an immune checkpoint inhibitor.

THOR-707 is a variant of recombinant human IL-2 that is pegylated at one specific site, designed to block engagement of the high affinity IL-2 receptor α chain, extend half-life by slowing THOR-707’s clearance from the body, increase tumor distribution and retention, and improve solubility and uniformity of molecule mass, or monodispersity. We have designed THOR-707 to kill tumor cells by increasing CD8+ T and NK cells without causing VLS, which has been observed with aldesleukin, an IL-2 therapeutic that was approved by the FDA over 25 years ago for the treatment of patients with metastatic renal cell carcinoma and metastatic melanoma. Durable clinical responses and in some cases, cures, have been observed in these patients following treatment with aldesleukin due to increases in CD8+ T cells, which are a subset of T cells that identify and destroy tumor cells. However, widespread use of aldesleukin has been limited by toxicities, which include life-threatening and sometimes fatal VLS as well as by its short half-life, requiring dosing three times per day over eight days. THOR-707 was designed to have key advantages over current IL-2 therapies, such as improved selectivity, increased therapeutic index, ease of use and reduced risk for anti-drug antibodies. THOR-707 in Combination with Checkpoint Inhibitor(s) Published preclinical literature shows that combining IL-2 treatment with PD-1 inhibitors could have synergistic effects in enhancing CD8+ T cell responses. As a result, we believe that THOR-707 in combination with immune checkpoint inhibitors may have greater anti-tumor effects than PD-1 inhibitors alone without the VLS observed with aldesleukin. We plan to file an IND with the FDA in the second quarter of 2019 and, thereafter, initiate a Phase 1/2 clinical trial of THOR-707 in multiple tumor types as both a single agent and in combination with immune checkpoint inhibitors.