



Team Progress Updates

Pancreatic Cancer Collective Research Team:

“Adoptive Transfer of TGF- β Resistant TIL to Defeat Immunosuppressive PDAC New Therapies Challenge”



Reactivation of the immune system's anticancer function has dramatically improved outcomes for several solid tumor types but has not yet shown similar efficacy for pancreatic cancer. Pancreatic cancer tissue has a high level of transforming growth factor beta (TGF- β). TGF- β effectively counteracts the immune system.

Team researchers have developed methods to isolate the few tumor-specific killer T cells (called tumor-infiltrating lymphocytes, or TILs) from pancreatic cancer tissue and greatly expand their numbers in the laboratory. They can then transfer these TIL cells back to the patient for maximal impact against the tumor cells. They have used this approach very successfully in metastatic melanoma and shown that 42% of treatment-resistant patients derived benefit from the therapy.

The Team is now developing TIL therapy for pancreatic cancer patients, using engineered TILs that are made resistant to the suppressive effect of TGF- β . In the 14-month period of this grant, they are focusing on demonstrating feasibility and potential efficacy of this approach in the laboratory.

This team started its work in November 2018; progress notes will be posted after its first review.

