



Team Progress Updates

Pancreatic Cancer Collective Research Team:

“Molecularly Targeted Radionuclide Therapy via Integrin AlphaVBeta6 New Therapies Challenge”



The majority of pancreatic cancer patients will present with metastatic disease. The protein called integrin $\alpha\beta6$ is significantly up-regulated in pancreatic cancer, including in metastases. $\alpha\beta6$ is a particularly attractive target for peptide receptor radionuclide therapy (PRRT).

PRRT with lutetium-177 radiolabeled peptides have been shown to be promising for treatment of advanced neuroendocrine tumors and castration-resistant prostate cancer. Team researchers have developed ^{18}F - $\alpha\beta6$ -binding peptide, a radiolabeled peptide for PET imaging, and have successfully imaged metastases. They now aim to further develop this peptide construct into a PRRT using lutetium-177.

The team is performing all the necessary preclinical testing including in vivo imaging and assessment of therapeutic efficacy in murine models of pancreatic cancer, toxicology studies, preparation of chemistry manufacturing, control documentation, and preparation of a clinical protocol, culminating in the submission of an investigational new drug to the U.S. FDA for a first-in-human therapy trial. The completion of phase I will allow the researchers to rapidly move to a multisite therapeutic trial of this agent in patients with advanced pancreatic cancer.

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

