Dr. Sunil Hingorani identified the molecular basis for determining the best course of treatment for pancreatic cancer. His diagnostic test distinguishes patients at low risk of metastasis for whom surgery is the best initial treatment from those with a high risk of metastasis, who should receive systemic treatment prior to resection. He found, in a cohort of 88 PDA patients who underwent definitive resection and 24 patients who received systemic treatment +/- local radiation therapy, that patients having high levels of RUNX3 and intact DPC4 benefit most from initial systemic therapy, followed by tumor resection, whereas those with low RUNX3 levels would benefit most from resection followed by systemic treatment. Patients with high RUNX3 and loss of DPC4 pose the greatest challenge, where the primary tumor needs to be followed closely for the opportunity for resection.

Applications
- Therapeutic guidance for treatment of PDA

Advantages
- Novel diagnostic test
- Distinguishes pancreatic cancer patients with low or high risk of metastasis

Market Overview
About 53,000 individuals per year are diagnosed with pancreatic ductal adenocarcinoma (PDA). It is the fourth leading cause of cancer-related death in the United States with a dismal 5-year survival rate of 6%. Due to a lack of understanding of the metastatic potential of PDA, it is currently unclear what is the best treatment strategy for patients.

Investigator Overview
Sunil Hingorani, MD, PhD, Clinical Research and Public Health Divisions