



Research

PANCREATIC CANCER ACTION NETWORK

ADVANCE RESEARCH. SUPPORT PATIENTS. CREATE HOPE.

www.pancan.org | 877.272.6226

GRANT SNAPSHOT

2007 Pancreatic Cancer Action Network Pilot Grant

Grantee:	Sunil R. Hingorani, MD, PhD
Institution:	Fred Hutchinson Cancer Research Center, Seattle WA
Project Title:	<i>Activated Kras^{G12D} and Oncogene Dependence in Pancreatic Cancer</i>
Award Period:	July 1, 2007 – June 30, 2008 (No-Cost Extension: December 31, 2008)
Amount:	\$60,000



Biographical Highlights

After receiving his MD and PhD in cellular and molecular physiology from Yale University, Dr. Hingorani completed his residency at Brigham and Women's Hospital in Boston and a clinical fellowship in hematology and oncology at Dana-Farber Cancer Institute/Brigham and Women's Hospital/Massachusetts General Hospital Cancer Care Program. Subsequently, he held a postdoctoral fellowship at the Massachusetts Institute of Technology; taught at the

University of Pennsylvania, Abramson Cancer Center and Abramson Family Cancer Research Institute; and was an attending physician at Philadelphia Veterans' Administration Medical Center. He joined the Hutchinson Center in 2005, where he focuses his laboratory on the use of genetically engineered mouse models to learn about the biology of pancreas cancer and how these findings can be used to advance the detection and treatment of the disease in humans.

Project Description

In pancreas cancer, mutations in a specific oncogene, called *KRAS*, appear to be essential to initiate the disease. It remains unknown, however, whether sustained activity of this mutant gene is required to maintain the preinvasive or invasive and metastatic stages of the disease. If so, then the very event that endows the pancreatic cancer cell with its lethal abilities may also represent the means to its undoing. Expressing this mutant gene in the mouse pancreas has been previously shown to induce the development of all three stages of preinvasive pancreas cancer lesions, termed pancreatic intraepithelial neoplasias (PanINs). These lesions can progress of their own accord, or can be hastened to progress in the setting of additionally targeted tumor suppressor gene mutations, to fully invasive and widely metastatic pancreatic ductal adenocarcinoma (PDA). For the current project, experiments will be conducted to turn off this gene at discrete points in the course of disease progression to rigorously demonstrate whether, and at what stage, mutant *Kras* represents a valid therapeutic target.