GRANT SNAPSHOT

2012 The Daniel and Janet Mordecai Foundation – Pancreatic Cancer Action Network – AACR Career Development Award

Grantee:	Jiyoung Ahn, PhD
Institution:	New York University
Research Project:	*Oral Microbiome and Pancreatic Cancer: A Prospective Case-Control Study*
Award Period:	July 1, 2012 – June 30, 2014
Amount:	$200,000

Biographical Highlights

After receiving her PhD at Cornell University in Ithaca, New York, Dr. Ahn completed her postdoctoral studies in genetic and nutritional epidemiology at the Division of Cancer Epidemiology and Genetics, National Cancer Institute in Bethesda. Since 2009, she has been an Assistant Professor at the NYU School of Medicine, in the Department of Population Health.

Dr. Ahn has been an author on 53 peer-reviewed papers to date, including articles published in prestigious journals such as *Nature Genetics*, *Journal of the National Cancer Institute*, and *Cancer Research*. Her high-quality and innovative work has also been recognized with several awards and honors, and she has received research funding from the National Cancer Institute, Department of Defense, and Woodrow Wilson Foundation. Dr. Ahn's laboratory focuses on the human microbiome and human genetics of cancers, including pancreas.

Project Overview

Chronic pancreatitis, or constant inflammation of the pancreas, is considered a risk factor for pancreatic cancer. The mechanism by which the inflammatory reaction potentiates tumor formation is unknown; however, Dr. Ahn hypothesizes that the inflammation in the pancreas is related to the presence of bacterial species in the pancreas, which in turn is associated with the types of bacteria that exist in a person's mouth. The entire spectrum of bacteria in the human body is called the human microbiome, which can be measured using a novel genomic sequencing technology.

Dr. Ahn will perform a prospective (forward-looking) study of saliva samples from 150 people who went on to develop pancreatic cancer, and 150 healthy people of the same age. She and her colleagues will determine whether a person's oral microbiome may predict for later development of pancreatic cancer, and how the bacteria present in a patient's mouth is related to his/her bacterial content in the pancreas and its surroundings. Finally, her studies will explore whether modifications of oral or pancreatic bacteria might be able to prevent pancreatic cancer development.