GRANT SNAPSHOT

2008 Pancreatic Cancer Action Network – AACR Pilot Grant

Grantee: Dafna Bar-Sagi, PhD
Institution: New York University School of Medicine, New York
Research Project: Impact of Diet-Induced Hyperlipidemia on Pancreatic Inflammation and Cancer
Award Period: July 1, 2008 – June 30, 2010
Amount: $100,000

Biographical Highlights
After earning her undergraduate and master’s degree in Biochemistry from Bar-Ilan University in Israel, Dr. Bar-Sagi completed a PhD in Cell Biology at the State University of New York, Stony Brook (SUNY). She received postdoctoral training and eventually served as Senior Staff Investigator at Cold Spring Harbor Laboratory in Long Island. In 1995, she joined the faculty of the Department of Molecular Genetics and Microbiology at SUNY and served as Department Chair from 2003-2006. She relocated to New York University Medical Center in 2006, where she is currently Professor and Chair of the Department of Biochemistry. Dr. Bar-Sagi has published over 100 peer-reviewed articles in leading scientific journals. In 2008, she was appointed Chair of the Scientific Advisory Board of the Pancreatic Cancer Action Network.

Project Overview
The funded project focuses on the relationship between high fat diet-induced hyperlipidemia and the development of pancreatic cancer. Hyperlipidemia is an excess of fatty substances called lipids, largely cholesterol and triglycerides, in the blood. High fat diet and obesity have been implicated in the etiology of chronic pancreatitis (inflammation of the pancreas) and pancreatic cancer. However, the mechanistic basis of this association remains unknown. The overall goal of the project is to establish a mouse model and investigate this link. The experimental design will take advantage of mice that have been genetically engineered to develop hyperlipidemia following feeding of a high fat diet. These mice will be employed to (1) characterize the structural changes that the pancreas endures in response to hyperlipidemia; and (2) assess the effects of hyperlipidemia on pancreatic cancer development. By exploring the cause-and-effect relationships between hyperlipidemia and pancreatic carcinogenesis, these studies will provide new insights into the epidemiological connection between obesity, high fat diet and pancreatic cancer.