



**Research**

**PANCREATIC CANCER ACTION NETWORK**

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## GRANT SNAPSHOT

### 2011 Pancreatic Cancer Action Network – AACR Innovative Grant

Grantee:	Lisa Cannon-Albright, PhD
Institution:	University of Utah
Research Project:	<i>Informative Linkage Analysis of High-Risk Pancreatic Cancer Pedigrees</i>
Award Period:	July 1, 2011 – June 30, 2013
Amount:	\$200,000

### Biographical Highlights



Dr. Cannon-Albright is currently a Professor and Division Chief of Genetic Epidemiology, Department of Internal Medicine, at the University of Utah School of Medicine. Her Master's and PhD degrees were also completed at the University of Utah, with undergraduate studies taking place at Brigham Young University.

Dr. Cannon-Albright is a leading genetic epidemiologist, and her work has directly contributed to the understanding of breast cancer, melanoma, and prostate cancer genetics. Dr. Albright has over three decades of experience utilizing a unique computerized genealogy of Utah, combined with access to medical data, to describe the genetic links to various health-related outcomes. She intends on analyzing these rich resources to gain knowledge about genetic factors related to pancreatic cancer risk.

### Project Overview

Approximately ten percent of pancreatic cancer cases are thought to be hereditary. However, very few genes have been identified that are linked to pancreatic cancer risk, and the genetic abnormalities are likely to occur quite rarely. Among the challenges to discovering genes associated with hereditary pancreatic cancer is the lack of DNA samples from familial cases to study. In order to bypass this hurdle, Dr. Cannon-Albright proposes to utilize resources available through the state of Utah, the University of Utah, and the Huntsman Cancer Institute to find families with multiple incidences of pancreatic cancer, and study the genetic changes that may contribute to their increased pancreatic cancer risk by extracting DNA from normal tissue stored after surgery.

The Utah Population Database dates back to the pioneer founders of the state (mid-1800s), and currently includes genealogy data for over two million individuals. Furthermore, the largest health care provider in Utah has stored all pathology samples since the 1960s, and the Huntsman Cancer Institute has stored DNA from all pancreatic cancer cases since the year 2000. Dr. Cannon-Albright and colleagues have determined a method to extract DNA from decades-old samples of normal tissue, allowing analyses of genetic abnormalities in multiple members of pancreatic cancer-prone families. Dr. Cannon-Albright aims to identify and gather genetic information for about 15 extended families with high risk of pancreatic cancer (at least six sample cases each), and pinpoint which genetic changes may predispose individuals to the disease. These studies represent the first time multiple high-risk pancreatic cancer families' genes have been scrutinized in a linkage analysis, and can greatly contribute to the understanding of the genetic bases of pancreatic cancer.