GRANT SNAPSHOT

2006 Pancreatic Cancer Action Network – AACR Career Development Award

Grantee:	Daoyan Wei, PhD
Institution:	MD Anderson Cancer Center, Houston, TX
Project Title:	*The Role of KLF4α in Pancreatic Cancer*
Award Period:	July 1, 2006 – June 30, 2008 (No-Cost Extension: June 30, 2009)
Amount:	$100,000

Biographical Highlights

Currently Dr, Wei is an Instructor in the Department of Gastrointestinal Medical Oncology at the University of Texas MD Anderson Cancer Center. He received his PhD in Molecular Biology from Shanghai Second Medical University in The People's Republic of China in 2000 and then completed postdoctoral training at the University of Michigan and University of Texas. Dr. Wei developed his research focus on pancreatic cancer since joining MD Anderson.

Project Description

Pancreatic ductal adenocarcinoma is a genetic disease which exhibits an abundance of molecular alterations that include mutations in the Kras, p53, p16 and Smad4 genes, and the overexpression of multiple growth factors and their receptors, which transmit the growth signals into tumor cells. It is likely that yet unrecognized genetic alterations may also contribute to the carcinogenesis and progression of pancreatic cancer. This study investigates the biological significance and molecular mechanism of KLF4α (an alternative form of the KLF4 protein) in pancreatic cancer biology. The results are expected to shed new light on our understanding of the molecular events that lead to the development and progression of pancreatic cancer and may hold great potential for the use of KLF4α as a biomarker or therapeutic agent for human pancreatic cancer.

Results/Outcomes

Findings indicated that KLF4α level was higher in a subset of pancreatic cancers and associated with poor outcome, suggesting that KLF4α may be a potential diagnostic marker or therapeutic target in pancreatic cancer.

Next Steps

Efforts have begun to investigate the underlying mechanisms that lead to the alterations of KLF4α in pancreatic cancer. Results will be helpful for developing effective and mechanism-based intervention strategies for pancreatic cancer therapy.

Follow-Up Funding

National Cancer Institute (9/27/2006-8/30/2009; Amount: $100,000). Research to screen for genetic alterations of KLF4 and to determine their molecular actions in pancreatic cancer.

Publications Related to Funded Project

Wei D, Kana M, Jia Z, Le X, Xie K. Krüppel-like factor 4 induces *p27*^{Kip1} expression in and suppresses the growth and metastasis of human pancreatic cancer cells. *Cancer Res,* 2008;68: 4631-4639.