GRANT SNAPSHOT

2006 Pancreatic Cancer Action Network – ASCO Career Development Award

Grantee:	David Z. Chang, MD, PhD
Institution:	MD Anderson Cancer Center, Houston, TX
Project Title:	*Treating Pancreatic Cancer with the Well-Characterized Anti-Allergy Drug Cromolyn Through a Novel Mechanism of Action*
Award Period:	July 1, 2006 – June 30, 2009
Amount:	$170,000

Biographical Highlights

Dr. Chang is Assistant Professor of Gastrointestinal Medical Oncology at University of Texas MD Anderson Cancer Center in Houston. After earning his MD and PhD in Pharmacology and Toxicology at Dartmouth Medical School in Hanover, NH, Dr. Chang completed an internship and residency at the Cleveland Clinic Foundation in Ohio and a clinical fellowship in Medical Oncology/Hematology at Memorial Sloan-Kettering Cancer Center in New York. Dr. Chang specializes in pancreatic cancer, colorectal cancer, and neuroendocrine tumor. His research interest is in developing active immunotherapy for gastrointestinal cancers. He has authored/co-authored over a dozen peer-reviewed papers and three book or book chapters. As one of the founding members of the Chinese American Hematologist and Oncologist Network (CAHON), Dr. Chang has been actively participated in promoting this organization in the United States as well as in China.

Project Description

Novel treatment approaches are desperately needed for pancreatic cancer which is usually resistant to traditional chemo- and radiation therapy. In this study, Dr. Chang explores the use of a well-characterized anti-allergy drug, cromolyn, in the treatment of pancreatic cancer through a novel mechanism. A phase I study will be conducted to examine the tolerability of cromolyn alone or in combination with gemcitabine in previously treated pancreatic cancer patients. Dose-limiting toxicity and maximum tolerated dose will be determined. Preliminary efficacy data will be documented. Dr. Change will also perform laboratory correlative studies on biopsied tumor tissues from patients to assess NFκB activity. The long-term goal is to develop effective treatment for pancreatic cancer through a combination of cytotoxic drugs with agents targeting signaling pathways.

Results/Outcomes

Stability testing has been performed for the intravenous formulation of cromolyn and efforts have been undertaken to prepare for pre-IND meetings. Due to funding limitations, it has not been

possible to open the clinical trial for patient accrual. In the interim, a new analog of cromolyn has been synthesized which was shown in preclinical studies to be much more potent in its anti-tumor effect. The new analog will be patentable and will allow funding to be requested from investing companies to support the clinical trial.

Lessons Learned

The best lesson learned is that sound science will help develop rational clinical trials that will most likely benefit patients. Also, the study helped illuminate the practical aspect of intellectual property, which may help facilitate the development of a clinical trial.

Next Steps

Work will continue with the new cromolyn analog, including additional anti-tumor efficacy studies and toxicity studies to prepare for pre-IND meetings. The clinical trial protocol will be further amended to incorporate the new analog.

Follow-Up Funding

Patent issues have in the past impeded funding from investing companies. However, there may be interest in the new analog. A R21 application also will be submitted to NIH to help cover part of the cost.