



Research

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GRANT SNAPSHOT

2014 Pancreatic Cancer Action Network – Translational Continuation Research Grant

Grantee:	David Ting, MD
Institution:	Massachusetts General Hospital
Research Project:	<i>Circulating Tumor Cells to Assess Pancreatic Cancer Disease Status</i>
Award Period:	July 1, 2014 – June 30, 2016
Amount:	\$250,000

Biographical Highlights



Dr. Ting is currently an Assistant Physician, Massachusetts General Hospital and Assistant Professor in Medicine, Harvard Medical School. After receiving his B.S. in chemical engineering and biology from the Massachusetts Institute of Technology, Dr. Ting completed his medical degree at Harvard Medical School and his residency in internal medicine at Massachusetts General Hospital. Next, he became a medical oncology fellow in the combined Dana-Farber Cancer Institute and Massachusetts General Hospital Cancer Center program. In 2009, he was awarded a Fellowship grant from the Pancreatic Cancer Action Network, which allowed him to develop the foundation for the circulating tumor cell project outlined below.

Project Overview

Translational research aims to bridge findings in the laboratory with clinical impact to help patients. Dr. Ting's project involves circulating tumor cells (CTCs), which are cancer cells that can be found in the blood of patients and serve as a "liquid biopsy" to understand the status of the cancer. However, the isolation and characterization of these cells remains a technological challenge. Dr. Ting and his colleagues have developed a novel CTC isolation device with high sensitivity that can capture CTCs from pancreatic cancer patients.

For his funded project, Dr. Ting plans to test whether CTCs can inform decisions about which treatment would be best for a particular pancreatic cancer patient, and also provide indication about whether a patient is responding to the treatment currently being administered. In addition, preliminary data from mouse models of the disease indicate that CTCs can be detectable in the bloodstream of mice harboring precancerous abnormalities in their pancreas. Similar evidence has shown that patients with pancreatic cysts may have CTCs in their blood, predicting for the cyst's progression to cancer. Therefore, Dr. Ting also proposes to determine the usefulness of CTCs as a biomarker for the early detection of pancreatic cancer. Overall, the two major goals of this grant will be to provide a more rapid and accurate assessment of the response of pancreatic cancer to chemotherapy and to lay the foundation of developing pancreatic CTCs as a non-invasive early detection biomarker for patients. This grant will provide essential support to develop the best standardized CTC assays that can be readily implemented to the clinic.