GRANT SNAPSHOT

2005 Samuel Stroum – Pancreatic Cancer Action Network – ASCO Young Investigator Award

Grantee:	Aram F. Hezel, MD
Institution:	Dana-Faber Cancer Institute. Boston, MA
Project Title:	*Novel Therapeutics Antibodies for Pancreatic Ductal Adenocarcinoma*
Award Period:	July 1, 2005 – June 30, 2006
Amount:	$35,000

Biographical Highlights

Dr. Hezel received his MD from State University of New York at Buffalo School of Medicine in New York. He completed a residency in internal medicine at Beth Israel Deaconess Medical Center and a fellowship in medical oncology at Dana-Farber/Partners Cancer Care in Boston. Dr. Hezel's research focuses on the biology, genetics, and therapeutic development in pancreatic ductal adenocarcinoma. Key interests include understanding which potentially targetable signaling pathways are important in fully established tumors as well as how to best disrupt these pathways. The refinement and development of improved preclinical models for evaluating therapies are also of primary concern.

Project Description

The funded project aims to evaluate frozen pancreatic cancers and determine which genes are important based on changes in their copy number. Over 120 banked frozen pancreatic tumor samples are examined and the highest quality samples are evaluated by genomic profiling, a technique that allows us to look at the numbers of copies of a gene. Distinct changes in primary tumors were identified that are likely to point to important genes. Different tumor types, including melanoma, colorectal cancer, multiple myeloma, glioblastoma and lung cancer, are also profiled in order to focus on those genetic changes that are likely to be important across multiple tumor types. A total of 40 regions with 565 resident genes have been identified that appear important.

Results/Outcomes

The analysis pointed to one key region of the genome that was recurrently amplified in pancreatic cancer. The genes within this region were evaluated for expression. Several were evaluated individually and one was identified that may be important to metastasis and tumor migration.

Lessons Learned

Finding genes important to cancers takes great teamwork and expertise in many areas. Generally, this work is best accomplished by a large group with experience across many technologies.

Next Steps

Understanding how the gene functions within cells as well as why it may be important to pancreatic cancer.

Follow-Up Funding

Dr. Hezel has collaborated with other researchers on projects related to pancreatic cancer, the downstream molecular effects of Kras driven oncogenesis, clinical trial design in pancreatic cancer, and the utility of pancreatic cancer models in helping to pinpoint new cancer genes. His efforts have resulted in several grants including an NIH K08 Career Development Award for ongoing studies in the genetics of pancreatic cancer and an HHMI grant.