



**Research**

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## GRANT SNAPSHOT

### 2010 Skip Viragh – Pancreatic Cancer Action Network – AACR Career Development Award

Grantee:	Jonathan Brody, PhD.
Institution:	Thomas Jefferson University
Research Project:	HuR is a Predictive and Prognostic Marker in Pancreatic Cancer
Award Period:	July 1, 2010 – June 30, 2012
Amount:	\$200,000



### Biographical Highlights

Dr. Brody earned his PhD in Pathobiology from Johns Hopkins University and continued there to complete a fellowship in the Departments of Pathology and Oncology and served as an Instructor in the Advanced Programs in Biotechnology. In 2006, he joined Thomas Jefferson University as an Assistant Professor of Surgery and also currently co-directs the Jefferson Pancreatic, Biliary, and Related Cancers Center. In 2009, Dr. Brody received the Outstanding Research Award for Kimmel Cancer Center – Jeff Pilot Award.

He serves as a member of the Editorial Board of the *American Journal of Pathology*, has co-authored leading book chapters, and published his research widely in leading scientific journals, including *Future Oncology*, *Journal of GI Surgery*, *Cancer Research*, *American Journal of Pathology*, *Modern Pathology*, *Journal of the American College of Surgeons*, *Cell Cycle*, and *Cancer Biology and Therapy*. Dr. Brody has a shared patent on what may someday be a ubiquitous tool in DNA analysis. The discovery could have a range of applications, from forensics to cloning to bioterrorism.

### Project Overview

The standard of care for pancreatic cancer patients is the chemotherapeutic agent gemcitabine. Unfortunately, the success rate for this drug is modest. There is a great need for new drugs, as well as ways to predict which patients will respond best under which treatments.

Dr. Brody's preliminary studies have determined that a protein called HuR could serve as a predictor for patients' responsiveness to gemcitabine. In the absence of treatment, HuR stabilizes cancer cells in an otherwise unstable environment, providing a growth advantage. However, Dr. Brody's research suggests that patients expressing HuR respond better to gemcitabine treatment, whereas the protein's absence predicts for drug failure. In fact, his early studies displayed a seven-fold decrease in patient survival in the absence of HuR expression. The purpose of these studies is to further analyze this phenomenon in a larger pool of pancreatic cancer patients, as well as better understand the role of HuR in the development of pancreatic cancer. Ultimately, Dr. Brody is hoping to create a way to stratify patients into gemcitabine responders or non-responders, and thus personalize the pancreatic cancer treatment administered, giving certain drugs only to the patients most likely to benefit from them.