



**Research**

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## GRANT SNAPSHOT

### 2014 Robert Aronson – Pancreatic Cancer Action Network – AACR Innovative Grant

Grantee:	Anirban Maitra, MBBS
Institution:	MD Anderson Cancer Center
Research Project:	<i>Macrophage Function in Pancreatic Cancer-associated Diabetes</i>
Award Period:	July 1, 2014 – June 30, 2016
Amount:	\$200,000

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## Biographical Highlights



Dr. Maitra is Professor of Pathology and Translational Molecular Pathology at University of Texas MD Anderson Cancer Center, and Scientific Director of the Sheikh Ahmed Bin Zayed Center for Pancreatic Cancer Research (since August 1, 2013). Prior to this appointment, Dr. Maitra had been at Johns Hopkins University School of Medicine since 2001. In 2004, Dr. Maitra received a Career Development Award from the Pancreatic Cancer Action Network. He is a member of the organization's Scientific and Medical Advisory Board. Over the past decade, Dr. Maitra's group has made several seminal observations in the biology and genetics of pancreatic cancer. As a translational researcher, he has a major interest in early detection of pancreatic cancer.

## Project Overview

Long-standing diabetes is considered a risk factor for pancreatic cancer. However, recent studies have shown that new onset diabetes, especially in the elderly, might be a marker of an underlying pancreatic cancer. Around half to two-thirds of pancreatic cancer patients have been diagnosed with new onset diabetes in the prior 36 months. Given that there are millions of elderly Americans diagnosed with new onset diabetes each year, and less than 1% harbor an underlying pancreatic cancer, there is an obvious need to segregate the vast majority of patients who do not require further expensive imaging studies from the few that will likely benefit.

The objective of Dr. Maitra's proposal is to identify novel biomarkers that can differentiate diabetic patients who merit further screening for pancreatic cancer from those that do not. The research team's preliminary data suggests that there are significant functional differences in the status of a blood cell type known as "monocytes" between patients with pancreatic cancer associated diabetes and those with the usual type 2 diabetes. In this grant proposal, Dr. Maitra and colleagues will obtain blood samples from groups of patients who have been diagnosed with type 2 diabetes alone, pancreatic cancer alone, and pancreatic cancer associated diabetes. They will analyze multiple elements of monocyte function in these three groups, in order to validate their initial hypothesis on differences in function between usual type 2 diabetics and those with pancreatic cancer-associated diabetes. The National Cancer Institute has recently designated research into pancreatic cancer-associated diabetes as one of the top priorities for improving the dire prognosis of pancreatic cancer. Dr. Maitra's study, through identification of biomarkers that can "turn back the clock" on the timing of pancreatic cancer diagnosis in new onset diabetics, could greatly improve prognosis in this patient subset.