

# PROGRESS UPDATE

**Bob Parsons Memorial hosted by Shem Creek Capital**

*September 2018*



Dana-Farber Cancer Institute has been the top ranked cancer hospital in New England by U.S. News and World Report for 18 consecutive years, and is the only cancer center in the country ranked in the top 4 for both adult and pediatric cancer programs.



## INTRODUCTION

---

Your partnership is integral to Dana-Farber Cancer Institute's efforts to deliver total patient care. Your philanthropy through the **Bob Parsons Fellowship** empowers our early-career investigators to pursue original ideas at critical junctures in their professions, shaping the future of pancreatic cancer research and fueling efforts to decode the complex mechanisms that drive this disease. In addition, thanks to your commitment to the Crisis Fund, patients who face significant financial stress can receive the support they need to ease strains on their treatment or recovery. We thank you for your dedication to helping advance pancreatic cancer research and compassionate patient care.

## SUPPORTING FUTURE LEADERS IN PANCREATIC ONCOLOGY

---

The 2017-2018 Bob Parsons Fellow, **Natalia Khalaf, MD**, leveraged your support to identify imaging markers of pancreatic cancer to improve early detection of this disease. She also explored the impact of aspirin on pancreatic cancer to determine whether anti-inflammatory interventions could reduce the risk of a future cancer diagnosis. The incoming Bob Parsons Fellow, **Ana Babic, PhD, MS**, will be working to identify metabolic biomarkers of early pancreatic cancer to improve early detection strategies.

### ***Leveraging imaging technology to improve early detection***

Pancreatic cancer has few early symptoms and often progresses to an advanced stage before it is detected. In an effort to catch the disease when it first emerges, Dr. Khalaf worked with **Brian Wolpin, MD, MPH**, to identify early detection markers, or biological signals that indicate that the malignancy is in its initial stages, which could enable clinicians to start treatment earlier or even prevent the tumor from developing.


To this end, Dr. Khalaf created a database of patients who received either PET or MRI scans of their abdomen before they were diagnosed with pancreatic cancer—one of the first datasets to include pre-diagnosis scans. She analyzed thousands of medical records and flagged those who received imaging five years prior to diagnosis. Because pancreatic cancer is most likely to cause cachexia, a syndrome that causes weight loss and muscle dystrophy, she and her collaborators looked to identify changes in body composition, in fat or



Natalia Khalaf, MD



Ana Babic, PhD, MS



muscle tissue, and in the pancreas itself to determine whether these factors might be attributable to early-stage pancreatic cancer. Should Dr. Khalaf and her colleagues identify potential clinical predictors from their initial set of 200 pre-diagnosis scans, the researchers will then move forward with creating a nationwide dataset to validate their findings.

### ***The impact of aspirin on risk***

Dr. Khalaf also led a study that evaluated a cohort of 141,940 individuals, all of them participants in the Nurses' Health Study and the Health Professional Follow-up Study, to better understand how aspirin informs pancreatic cancer risk. The Nurses' Health Study is an investigation into women's health launched in 1978—the longest running study of this cohort—that explores the risk factors for major chronic diseases in women, including how factors such as diet and lifestyle relate to illness. As a complement to the Nurses' Health Study, the Health Professionals Follow-Up Study is an investigation into men's health that was launched in 1986. This study group is therefore uniquely suited to illuminate the role of long-term use of aspirin and other nonsteroidal anti-inflammatory drugs (NSAIDs) in pancreatic cancer risk.

Dr. Khalaf's findings, published in the April 2018 *Gastroenterology*, reported that regular use of aspirin or NSAIDs did not correlate to future risk of pancreatic cancer. Interestingly, there was evidence that the use of aspirin or NSAIDs could potentially reduce the risk for pancreatic cancer in participants with diabetes, suggesting that further study of the correlation between aspirin and diabetes is merited.

### ***Identifying metabolic biomarkers for early detection***

Dr. Babic, the incoming Bob Parsons Fellow, will be exploring potential metabolic biomarkers of early stage pancreatic cancer. Previous research has shown that pancreatic cancer leads to significant changes in metabolism. Building on this insight, Dr. Babic aims to identify whether metabolites are altered early in the course of disease. Working in collaboration with a partner institution, preliminary data has shown that certain metabolites have presented with altered levels in patients with pancreatic cancer several years before their diagnosis. Dr. Babic will be validating this work in several larger studies to determine whether these metabolites could serve as biomarkers to predict pancreatic cancer.

## PATIENT ASSISTANCE FUNDS MAKE TREATMENT EASIER

---

Research reveals the high toll that cancer treatment takes on patients and their families. Dana-Farber's **Gregory Abel, MD, MPH**, recently published results of a survey revealing that 46 percent of stem cell transplant recipients had a decline in their income and 56 percent reported financial hardship six months after their transplant. Contributing factors included costs of transportation and parking, as well as time away from work by patients and their family members—common challenges faced by those receiving cancer treatment.

To help patients meet challenges such as these, in 2015, the Patient and Family Assistance Program established a Crisis Fund to give up to \$1,000 annually per patient to those who face significant financial stress that threatens treatment or recovery. The following are just a few examples of the ways in which these funds have helped patients weather their financial situation so that they can receive the care they need.

### ***Crystal***

Crystal, a married mother of two with advanced disease, is no longer able to work and is awaiting approval for Social Security disability. Due to an injury, her husband is on permanent disability. Because Crystal stopped working, she lost her health insurance and had to pay \$2,000 a month for care, in addition to other bills and a monthly mortgage. The Crisis Fund covered Crystal's mortgage for two months, giving her breathing room until she obtained her MassHealth and Social Security disability payments.

### ***Jose***

Jose, a patient in his 30s, had fallen so far behind on his rent that he was facing eviction. With nowhere else to turn, Jose feared that he would soon be homeless. The Crisis Fund covered some of the rent owed while a Resource Specialist helped to negotiate a good faith effort with the landlord, who agreed to allow the patient to remain in the apartment. The Resource Specialist also helped Jose apply for assistance from an external foundation, which eventually was granted to help pay down his past-due rent.

## THE POWER OF PHILANTHROPY

---

Your commitment to Dana-Farber is having an impact on a number of important fronts. The **Bob Parsons Fellowship** is supporting some of the most promising junior investigators at Dana-Farber as they work to elucidate the underlying biology of pancreatic cancer research, and your philanthropy is bolstering their efforts to improve patient experiences and outcomes. Additionally, through your support of the Crisis Fund, patients can receive the help they need to ease financial stress as they move through treatment or recovery. We thank you for your meaningful commitment, which keeps Dana-Farber at the forefront of patient care.

## FOR MORE INFORMATION

---

Josh Belowich  
Assistant Director, Jimmy Fund Golf Program  
Telephone: (617) 632-6609  
Email: [joshuaa\\_belowich@dfci.harvard.edu](mailto:joshuaa_belowich@dfci.harvard.edu)

© 2018 Dana-Farber Cancer Institute. All Rights Reserved.

*Reprinted with permission from Dana-Farber Cancer Institute. To learn more, visit [www.dana-farber.org](http://www.dana-farber.org).*

*For additional information, please contact Jane Anderson at [wendyj\\_anderson@dfci.harvard.edu](mailto:wendyj_anderson@dfci.harvard.edu) or 617-632-5283.*

*10% of all designated gifts will support our Faculty Research Fund to advance Dana-Farber's research mission.*