



## Newsletter of the Survivorship, Outcomes And Risk Program at MSK

### Transdisciplinary Population Science Grants Awarded

Funds Support Collaboration Between SOAR Investigators and Clinical, Laboratory Researchers



From left to right: Helena Furberg Barnes (Epidemiology & Biostatistics), Andrew Dannenberg (Weill Cornell Medical College), James Root (Psychiatry & Behavioral Sciences), Elin Berman (Medicine), Benjamin Roman (Surgery), Jennifer Hay (Psychiatry & Behavioral Sciences), Michael Tuttle (Medicine), Victoria Blinder (Epidemiology & Biostatistics), Wendy Lichtenthal (Psychiatry & Behavioral Sciences)

Four projects were funded in the fourth round of the MSK Transdisciplinary Population Science Awards, announced this month.

**Helena Furberg Barnes** (Epidemiology & Biostatistics), and **Andrew Dannenberg** (Weill Cornell Medical College) were funded for their study *Metabo-Inflammation and The Obesity Paradox in Kidney Cancer*. This project builds on previous research which identified mechanisms linking white adipose tissue inflammation characterized by crown-like structures (CLS) and cancer. The investigators will examine perinephric CLS in kidney cancer and examine its associations with clinicopathologic variables, body composition and circulating systemic biomarkers.

**James Root** (Psychiatry & Behavioral Sciences) and **Elin Berman** (Medicine) were funded for their study *Assessment Of Cognitive Dysfunction in TKI-Treated Chronic Myelogenous Leukemia Patients Using Cognitive-Experimental Methods*. The investigators developed a battery of cognitive-experimental measures, the Sensory-Attention Battery (SAB), which will be used to assess cognitive dysfunction in TKI-treated chronic myelogenous leukemia patients and age- and education-matched controls. The investigators will also assess whether the SAB is able to detect higher rates of cognitive dysfunction than traditional measures.

**Benjamin Roman** (Surgery), **Jennifer Hay** (Psychiatry & Behavioral Sciences) and **Michael Tuttle**

(Medicine) were funded for their study *Decision Making and Psychological Outcomes in Low Risk Papillary Thyroid Cancer*. This study will survey physicians and patients who have recently been diagnosed with low risk papillary thyroid cancer (LR-PTC), with the aim of investigating factors that influence the decision to pursue surgery or active surveillance for initial disease management. The investigators will also evaluate and compare psychological outcomes of patients who have chosen active surveillance or surgery for LR-PTC.

**Victoria Blinder** (Epidemiology & Biostatistics) and **Wendy Lichtenthal** (Psychiatry & Behavioral Sciences) were funded for their study *Development of an Intervention to Help Low-Income Breast Cancer Patients Work During Treatment*. This project builds on Dr. Blinder's existing study, which found that low-income breast cancer patients were less likely to retain their jobs after treatment than higher-income women. The investigators will develop a mobile health application to better support low-income immigrant and minority breast cancer patients receiving chemotherapy and improve long-term employment outcomes.

The Transdisciplinary Population Science awards are funded through MSK's NCI Cancer Center Core grant, a goal of which is to stimulate collaboration across disciplines within a center. Applications for the next funding cycle will be announced in May 2017, with an anticipated submission deadline next fall.

### New Laboratory to Address Genomics, Risk and Health Decision Making

SOAR Investigators Expand Research in Behavioral Aspects of Personalized Medicine

The Department of Psychiatry and Behavioral Sciences recently established a new laboratory for Genomics, Risk and Health Decision Making. Under the leadership of **Jennifer Hay** and **Jada Hamilton**, the lab will facilitate translation of discoveries in cancer risk and genomics through research on cancer risk perception and health decision making in patients, families, healthcare providers and the public.

Asked about the impetus for starting the new lab, Hay cited the burgeoning fields of genomics and personalized medicine. Hay has been studying the relationship between risk perception and behavior for many years; for example, examining whether and how a person's perceived melanoma risk influences his or her use of skin protection strategies. But the pace of technological advances demands increased attention to these issues. "Personalized medicine has implications across the cancer trajectory and requires the translation of rapidly emerging evidence on cancer etiology and treatment," Hay said.

Research in genomics and decision making is particularly relevant at MSK following the institution-wide adoption of the Integrated Mutation Profiling of Action-

able Cancer Targets (IMPACT) panel. Supported by an American Cancer Society Mentored Research Scholar Grant, Hamilton is studying MSK patients' attitudes and beliefs about tumor genomic profiling, and in particular, their feelings about incidental findings from tests like IMPACT. Commenting on the importance of this work, Hay noted that without studies like Hamilton's, "we make assumptions about what patients understand and what they believe, and research tells us over and over again that our assumptions are often wrong."

In addition to Hay and Hamilton, the Genomics, Risk and Health Decision Making Lab includes several trainees and research staff members. Hamilton and Hay hope that the lab will stimulate collaborations within Psychiatry and Behavioral Sciences and with investigators in other departments. The lab aims to facilitate theoretical, methodologic and applied research in health decision making and risk communication. Leveraging the expertise and resources of the institution, Hay and Hamilton hope that the new lab will enhance MSK's ability to respond to funding announcements that address cancer risk assessment, prevention and treatment.

## SOAR Grants

**Abraham Aragonés** (Immigrant Health & Cancer Disparities) was awarded an R01 from the National Institute on Minority Health and Health Disparities for “Ed-Tech-HPV: A Community Approach using Education and Technology to Increase HPV Vaccination.”

**Malcolm Pike** (Epidemiology) received an award from the Department of Defense’s Ovarian Cancer Research Program to support the “Multidisciplinary Ovarian Cancer Outcomes Group.”

## SOAR Seminars



**Ann Zauber** (Epidemiology & Biostatistics) presented *New Colorectal Cancer Screening Recommendations for Colorectal Cancer from the United States Preventive Services Task Force: Process and Dissemination* on September 13<sup>th</sup>.



**Peter Bach** (Health Outcomes) presented *A Research Program on Drug Pricing* on October 6<sup>th</sup>.



**Philip Castle**, Albert Einstein College of Medicine, presented *Globalization of Cervical (Pre)Cancer Screening as a Model of Addressing Global Cancer Health Disparities* on November 17<sup>th</sup>.

### Mark your calendar

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| <b>December 7</b><br>4:30PM<br>ZRC Auditorium | <b>President’s Research Seminar</b><br>Maura Gillison, MD, PhD<br>The Ohio State University |
| <b>January 10</b><br>4:00PM<br>ZRC Auditorium | <b>SOAR Seminar</b><br>W. Ian Lipkin, MD<br>Columbia University                             |
| <b>February 17</b><br>NYU School of Medicine  | <b>New York City Epidemiology Forum</b>   |

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## Study Shows Benefit of Adherence to Prostate Cancer Screening Recommendations

If U.S. men and their physicians followed current recommendations for prostate cancer screening and treatment, more than one-third of prostate biopsies could be avoided with little impact on prostate cancer mortality, according to a recent study by **Sigrid Carlsson** (Health Outcomes). The study, published in *Cancer*, included co-authors **Hans Lilja** (Surgery) and **Andrew Vickers** (Health Outcomes).



Carlsson and her colleagues used micro-simulation to estimate the impact of “best practices” for prostate cancer screening compared with observed practice patterns. Best practices include not screening elderly men 70 and older, considering reflex testing before biopsy, recommending active surveillance for appropriate patients and referring men to high-volume providers when indicated. Following these best practices would result in about 400 biopsies per 1,000 men, of which 250 would be negative, compared with almost 600 biopsies in current practice, of which more than 350 would be negative. Use of best practices was associated with a 37% relative reduction in prostate cancer mortality, compared with 41% under current practice.

An additional benefit of following best practices was improvement in quality of life, primarily attributable to the increase in active surveillance for men with low-risk disease, despite the slightly greater mortality benefit associated with current practice. Screening 1,000 men with best practices resulted in 74 quality-adjusted life-years, while current practice was associated with only 19 QALYs.

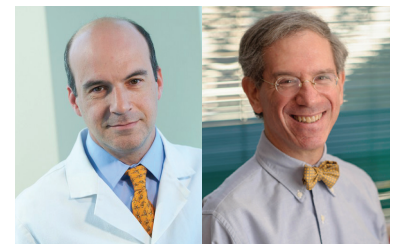
Asked about the implications of the study, Carlsson said that current practice has been associated with benefit but also harm, and that by following straightforward guidelines, the net benefit of PSA screening can be improved. However, changing practice can be difficult. “We need more work in implementation science [to identify] ways of influencing physician behavior,” Carlsson said. She also noted the value of microsimulation. “Because the PSA test is so widespread in the community,” said Carlsson, “there will never be another randomized controlled trial. Modeling allows us to project lifetime outcomes and can give important information regarding who, when and how often to screen.”

## SOAR Honors

★ **Andrew Vickers** (Health Outcomes) received the 2016 MSKCC Excellence in Mentoring Award.

## SOAR Investigators Receive Top Honor

SOAR investigators **Peter Bach** (Health Outcomes) and **Kenneth Offit** (Clinical Genetics) were elected to the National Academy of Medicine. Bach and Offit are among the 79 new members who will be inducted in the NAM next fall. Election to the NAM is considered one of the highest honors in health and medicine, recognizing individuals who have demonstrated outstanding professional achievement and commitment to service.



Peter Bach (left) and Kenneth Offit

The NAM, formerly the Institute of Medicine, was established in 1970 to address critical issues in health, science and medicine. The NAM and its sister organizations – the National Academy of Sciences and National Academy of Engineering provide independent, objective analysis to inform public policy decisions and solve complex problems facing the nation. The National Academies operate under an 1863 congressional charter to the National Academy of Sciences, signed by President Lincoln.

Bach and Offit join a distinguished roster of more than 1,800 NAM members, including **Malcolm Pike** (Epidemiology), who was elected to the Academy in 1994. An additional 20 MSK and SKI faculty are NAM members, representing a variety of disciplines and divisions across the center.