In Balance



January 2018

The Center for Energy Balance in Cancer Prevention and Survivorship, of the Duncan Family Institute, facilitates and conducts state-of-the-science research to understand the relationship between activity, nutrition, obesity and cancer, and uses this knowledge to optimize interventions to decrease cancer risk and improve cancer outcomes. The Center sponsors collaborative research, transdisciplinary educational opportunities and seminars to create, produce and disseminate innovative and practice-changing research results.

Upcoming Conferences

January 27-30, 2018, Austin, TX <u>American Association for Cancer</u> <u>Research: Obesity and Cancer</u>

February 11-14, 2018, Banff, Canada Active Living Research Conference 2018-Future-Proofing Activity: Application Across Sectors

February 16-17, 2018, Orlando, FL Cancer Survivorship Symposium: Advancing Care & Research

February 22-24, 2018, Tucson, AZ <u>American Psychological Oncology Society</u> (APOS) 15th Annual Conference

Upcoming Abstract Submission Deadlines

May 15-17, 2018, Stockholm, Sweden Global Academic Programs Conference Abstract Due: January 11, 2018

May 21-24, 2018, Galveston, TX Science of Team Science 2018 Conference (SciTS)

Abstract Due: March 20, 2018

June 1-5, 2018, Chicago, IL

ASCO Annual Meeting
Abstract Due: February 13, 2018

Directors:

Karen Basen-Engquist, Ph.D., M.P.H. kbasenen@mdanderson.org 713-745-3123



Center for Energy Balance in Cancer Prevention & Survivorship



Energy Balance Research Seminar Thursday, January 18, 2018

Title: PPARD in obesity and cancer: A dissociation between obesity and cancer promotion

Facilitated by: Imad Shureiqi, M.D., M.S.

Location: CPB8 Room 1 Time: 12:00–1:00 PM

Research Spotlight: Getting to Know Imad Shureiqi, M.D., M.S.

"From my early clinical training in medical school, I saw how people suffered from cancer, and I always wished I could help them. There is a global effort toward a cure, but the need remains great, even today."

Dr. Imad Shureiqi has dedicated his life's work to contribute to ending this never-ending disease, and has focused much of his research on colon cancer, which remains prevalent in industrialized countries like the U.S. "Colon cancer evolves in a progressive manner, from polyps, as pre-malignant lesions to cancer. Removing the early-stage polyps is commonly a missed opportunity, as people do not like colonoscopies, which allow polyp detection. We assume either genetics or one's environment drive cancer, but both are likely to play a role in colon cancer. Diet, obesity, intestinal microbial flora and chronic inflammation are likely to influence colon cancer development. For example, chronic bowl inflammatory diseases such as ulcerative colitis significantly increase the risk of colon cancer," he proclaims.

A hands-on physician scientist, Dr. Shureiqi earned his MD in Medicine at Damascus University. He completed his Residency in Internal Medicine as well as his Fellowship in Medical Hematology at State University of New York at Buffalo. He completed another Fellowship in Medical Oncology at the University of Michigan in Ann Arbor, where he began working on gastrointestinal and colon cancers. Here he also earned his M.S. in Clinical Trial Design and Statistical Analysis. He was recruited to M.D. Anderson in 1999, where he has served as an Assistant Professor and later as an Associate Professor, Departments of Clinical Cancer Prevention, Division of Cancer Prevention and Population Sciences and Gastrointestinal Medical Oncology, Division of Cancer Medicine.

Dr. Shureiqi has been widely recognized and honored for his peer-reviewed research, academic leadership and publications, and has served as the principal investigator for a host of protocols on colon cancer and the many molecules which impact its expression and progression. He has focused much of his work on how linoleic acid, the 15-LOX-1 enzyme, and the PPAR-delta gene interact to impact colon cancer.

"In simple terms, we think that diet plays a very important role in colon cancer, so I've done a lot of work studying the potential role of lipids and particularly unsaturated omega 6 fatty acids such as linoleic acid in colon cancer. The life span of a colon cell averages seven days, after which cells undergo programmed cell death (apoptosis) to prevent the accumulation of cells that have corruptive DNA which mutates into cancer. Colon cells, in contrast, do not undergo apoptosis, and thus these cells can form tumors. This ability of colon cancer cells to escape apoptosis is thought to be important to colon cancer development. Through our work in our laboratory, we demonstrated that a key enzyme that metabolizes linoleic acid, 15-lipoxygenase-1 (15-LOX-1), is lost in colon cancer cells and that 15-LOX-1 loss is linked to the cancer cells' ability to escape apoptosis. We later showed that 15-LOX-1 exerts these effects by suppressing the activity of PPAR-delta. Our current research efforts are focused on developing drugs that target these genes."

"There is a dichotomy regarding body weight and cancer in some individuals; it is not always a linear relationship, as many think," he explains. "There is possibly a higher risk if you are either too thin, or too heavy. We are doing genetic mouse models to determine the influence of the PPAR-delta gene in cancer evolution. When the PPAR gene is experimentally genetically deleted, mice become fat, and if you activate it, the mice become lean. Yet even when the mice look slim and fit, they are often developing cancer. We need to continue exploring the relationship of weight to cancer, and I welcome opportunities to collaborate with like-minded researchers on how the important PPAR-delta gene controls body weight and impacts energy balance and cancer development."

Joya Chandra, Ph.D. jchandra@mdanderson.org 713-563-5405



Studies in Progress

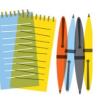
Spotlighted Researchers

Energy Balance Website

Become a Member

Need Some Help Pushing that Paper Across The Finish Line?

Register for the Energy Balance Writing Retreat on **February 9th**, **2018**, from 9-5pm in **FCT3.5004** (**Lab A**). Step away from your desk, and work on papers in a quiet space with other researchers and investigators. If you are interested, please email Miranda Baum at mlbaum@mdanderson.org by **February 8th**.



Translating Cancer Survivorship & Energy Balance Research into Public Health Initiatives: 6th State of the Science Cancer Survivorship Research Symposium

The Survivorship Research Advisory Workgroup and Center for Energy Balance in Cancer Prevention and Survivorship invites you to submit an abstract for the 2018 State of the Science Symposium which will be held on March 2, 2018, from 9 AM - 4 PM in the Duncan Building Conference Center. The theme for this one-day symposium is cancer survivorship and energy balance research with a focus on their relevance to public health.

Speakers:

Peter Pisters, MD: President, The University of Texas MD Anderson Cancer Center **Julia H. Rowland,** PhD: Senior Strategic Advisor, Smith Center for Healing and the Arts **Kathryn H. Schmitz,** PhD, MPH, FACSM, FTOS: Professor, Public Health Science, Penn State College Of Medicine

To register visit: Registration Page.

For abstract submission requirements and guidelines, visit the: Abstract Submission Page.

Abstract submission deadline is January 19, 2018, at 11:59 PM (CST).

For questions, contact Center for Energy Balance at EnergyBalance@mdanderson.org, or Kathy Carpenter at klcarpen@mdanderson.org.

American Institute for Cancer Research (AICR) Grant:

AICR's Investigator Initiated Research Grant Program is dedicated to funding research on cancer prevention, treatment and survival related to diet, nutrition, body composition and physical activity. Applications to the Investigator-Initiated Research Grant Program must address either the Cancer Prevention or the Cancer Survivors Research Area and align with at least one of the Research Themes (Biological Mechanisms or Host Factors/Susceptibility); for research in the area of Cancer Survivors, applications are invited to address a third theme of Exposure-Outcome Relationships. Applications must also adhere to AICR's research principles.

A Letter of Intent is required from ALL applicants and must be submitted by January 26, 2018.

More details on the research areas, themes and principles can be found in our 2018 <u>AICR Grant Application Package</u>.

Current Funding Opportunities:

National Institutes of Health [Standard dates apply]

Cancer Prevention and Control Clinical Trials Grant Programs (R01): PAR-18-559
Testing Interventions for Health-Enhancing Physical Activity: PAR-18-324 (R01)
Developing Interventions for Health-Enhancing Physical Activity: PAR-18-307 (R21/R33)
Collaborative Innovation Award, Clinical and Translational Science Award (CTSA)
Program (U01): PAR-18-244

Advancing Translational and Clinical Probiotic/Prebiotic and Human Microbiome

Research: PA-15-127(R01)

Education and Health: New Frontiers (R21): <u>PAR-18-387</u>; (R01): <u>PAR-16-080</u>;

(R03): <u>PAR-18-388</u>

Examination of Survivorship Care Planning Efficacy and Impact (R21): PA-18-012;

(R01): <u>PA-18-002</u>

Exploratory/Developmental Clinical Research Grants in Obesity: PA-18-104 (R21) Education and Health: New Frontiers (R21): PAR-18-387; (R01): PAR-16-080 Systems Science and Health in the Behavioral and Social Sciences

(R01): PAR-15-048

Translational Research to Improve Diabetes and Obesity Outcomes (R01): PA-13-352

Leveraging Cognitive Neuroscience to Improve Assessment of Cancer Treatment-Related Cognitive Impairment (R01): PAR-16-212; (R21) PAR-16-213

Predicting Behavioral Responses to Population-Level Cancer Control Strategies (R21): PAR-18-024

Innovative Approaches to Studying Cancer Communication in the New Media Environment (R01): PAR-16-249; (R21): PAR-16-248

Cancer-Related Behavioral Research through Integrating Existing Data

(R01): <u>PAR-16-256</u>; (R21): <u>PAR-16-255</u>

Stimulating Innovations in Behavioral Intervention Research for Cancer Prevention and Control (R21): PAR-18-018

National Cancer Institute Program Project Applications (P01): PAR-18-290

Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R21): <u>PAR-18-016</u>. (R01): <u>PAR-18-006</u>

American Cancer Society

The Extramural Grants department encourages applications for research projects that focus on the multifaceted relationship between nutrition, physical activity and cancer: Extramural Grants



Cancer Prevention & Research Institute of Texas

Company Relocation Product Development Research Award: RFA C-18.2-RELCO
High-Impact / High-Risk Research Awards (HIHR): RFA R-18.2-HIHR
Multi-Investigator Research Awards (MIRA): RFA R-18.2-MIRA
Texas Company Development Research Award: RFA C-18.2-TXCO

