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○ ISSUE 3 | ○ 2013

# MARKEY *quarterly*

SEASONAL NEWS FOR  
MARKEY CANCER CENTER  
FACULTY AND STAFF

## INNOVATIVE BIOBANK

ENHANCING RESEARCH CAPACITY FOR BIOMEDICAL INVESTIGATORS

The Clinical and Translational Science (CCTS) is rolling out an innovative project to develop an extensive Research Registry and Specimen Bank for UK researchers. The biobank will utilize leftover blood and tissue from normal medical procedures.

In the initial phase of the roll out, which began on Nov. 4, only elective surgical patients are receiving biobank consent forms. All UK patients, both inpatient and outpatient, will begin receiving biobank consent forms by January 2014.

UK HealthCare sees about 35,000 patient discharges annually, which could translate into a robust biobank of both healthy and non-healthy biospecimens of all varieties. The Markey Cancer Center will be a primary beneficiary of the biobank because it will greatly increase the capacity of its existing cancer tissue bank. The next phases of the roll-out process for the biobank will be in the Markey outpatient clinic.

“As an National Cancer Institute-designated cancer center, groundbreaking cancer research is a top priority for Markey, and the biobank will be a tremendous resource for our researchers to further develop and test their work,” said Dr. Mark Evers, director of the UK Markey Cancer Center. “By allowing us to keep blood and tissue samples that would have otherwise been discarded, our patients are providing a way to improve cancer care for many of our patients in the future.” The sheer size of the biobank will allow an unprecedented degree of flexibility in biobanking. Since it will be impossible and unnecessary to keep and store all collected tissue, the biobank will respond to specific research goals and investigators’ needs.



UK registrars are trained to explain the biobank consent form to patients.

## MARKEY BY THE NUMBERS

Years the University of Kentucky has been a tobacco-free campus .....	4
Population of Markey’s catchment area .....	5,000,000

# FROM THE DIRECTOR

B. MARK EVERS, MD, DIRECTOR, MARKEY CANCER CENTER



As news of our NCI Cancer Center designation was making headlines this year, you may have heard about Markey Cancer Center’s track record and progress fighting cancer in Appalachia. Although we associate Appalachia with the region closest to us in Kentucky, it actually stretches from the Mississippi Delta to southern New York. Appalachia as a whole has extremely high rates of cancer incidence and mortality, especially for lung, colorectal and cervical cancer. The central Appalachian region, much of which lies in the mountains of eastern Kentucky, is among the most economically disadvantaged, medically underserved, and disease-burdened areas in the nation. Of Kentucky’s 120 counties, 54 are in Appalachia, and 41 of those counties are classified as “distressed,” placing their economic indicators in the lowest 10% among all U.S. counties. Kentucky is first among all states in overall cancer mortality rate and has second highest incidence rate for all cancer sites.

As a result of these challenges, we’ve made it our explicit mission at Markey to reduce cancer mortality in our region through a comprehensive program of cancer research, treatment, education, and community engagement. In particular, our focus is on the underserved populations of Appalachian Kentucky and throughout our entire catchment area of central and eastern Kentucky, western West Virginia, northeastern Tennessee and southern Ohio.

Our ultimate goal is to drive a measurable reduction in the burden of cancer for our patients, their families, our state, our region, and our nation. Three goals, in particular, are key to our NCI status and upholding our mission:

1. Establish Markey as a transformational, comprehensive cancer center dedicated to the prevention and treatment of cancers and the reduction of cancer burden and disparities. Our focus in these efforts will continue to be the rural, under represented communities of eastern Kentucky.
2. Be a nationally recognized leader in the diagnosis and treatment of the specific cancers with high incidence rates in Kentucky and cancers that represent established or emerging strengths of the MCC.
3. Increase investigator-initiated clinical research and clinical trial accruals.

Fulfilling these goals through our NCI Cancer Center status will allow us to make a noticeable and measurable impact on the lives of Kentuckians, Appalachian residents, and the thousands of people throughout our catchment area whose lives have been impacted by cancer.

## Four New Faculty Comprise Innovative Metabolic Cancer Research Team

The Markey Cancer Center welcomes four new faculty members who study the role that metabolism plays in cancer. Teresa Fan, Andrew Lane, Richard Higashi and Hunter Moseley will bring more than \$17 million over five years in current federal funding and will develop a research center at UK.

The researchers will establish a UK Center for Regulatory and Environmental Analytical Metabolomics (UK-CREAM), in partnership with Markey over the next few months with their laboratories being located on the fifth floor of UK’s BioPharm Complex.

Fan, Lane, Higashi, and Moseley utilize state-of-the-art instrumentation to understand – by tracking atoms – how various conditions or environmental exposures disrupt normal metabolism and how abnormal metabolism contributes to the development and/or spread of cancer.

“The addition of this team of highly accomplished researchers is a major catalyst in the efforts of the Markey Cancer Center to both grow its cancer-related research funding and enhance its ability to submit a competitive renewal application of its National Cancer Institute (NCI) Cancer Center Support Grant in the next cycle,” said Dr. Mark Evers, director of the UK Markey Cancer Center.

## The 2012-2013 Markey Cancer Center Annual Report

The 2012-2013 Markey Cancer Center Annual Report is now available. Learn about NCI Designation, the Markey Cancer Foundation, a patient’s perspective, sisters sharing a mission to honor their late father, researchers tackling metabolism, and see the 2012-2013 year at a glance. Read more here.



# MEET A MARKEY MOVER

STEPHANIE P. HERRON, PRESIDENT AND CEO OF THE MARKEY CANCER FOUNDATION.

This quarter, Markey Quarterly introduces you to Stephanie P. Herron, President and CEO of The Markey Cancer Foundation.

**Good afternoon, Stephanie. Thank you for taking some time to talk with us. Where are you from originally and what brought you to The Markey Cancer Foundation?**

I grew up in Bellevue, Kentucky and have been fortunate to live and work across the United States, Eastern Europe and the United Kingdom with my husband, who was a US Navy pilot. In 2005, while I was serving as the Director of University Advancement at California State University, my brother Scott- who was only four years older than me- died from an aggressive form of esophageal cancer that metastasized to his liver. A few months later, one of our best friends from the Navy was diagnosed at age 35 with Stage IV pancreatic cancer and succumbed to the disease in less than a year. Their deaths had a profound effect on me. When this opportunity became available, I felt the mission and timing were right. The NCI-designation qualifies us for grant funds and participation in clinical trials on a whole new level; plus, the Foundation has an amazing Board of Trustees for whom I honored to serve. It is a privilege to focus on garnering the resources that can save lives and lead to a cure.

**How does The Markey Cancer Foundation work with the Markey Cancer Center?**

The Markey Cancer Foundation is an independent non-profit organization whose mission is to invest in the people and programs of Markey Cancer Center to discover a cure for cancer and to develop new and better treatments to fight cancer. We work closely with Dr. Mark Evers to identify pressing needs that require philanthropic support then reach out to a variety of funding resources to obtain that support. The money we raise funds cancer research, endowed chairs, equipment and facilities. We are also able to provide patient and family support with gas cards, hotel vouchers, covering patients' home utility bills, snacks during treatments and gowns designed especially for breast cancer patients. We are partners in excellence because the support we provide contributes to the outstanding level of care the Markey Cancer Center provides.

**What opportunities do you see for The Markey Cancer Foundation in the coming years?**

We have a tremendous opportunity to be the leading cancer fundraising organization serving Kentucky and beyond. We are looking to create a special "Nick of Time Fund" dedicated to addressing the abysmal cancer statistics in Kentucky through a robust cancer prevention program that includes support for an epidemiologist and behavioral scientist to identify factors leading to the high incidence and mortality of cancer.



**What should Markey Cancer Center employees know about The Markey Cancer Foundation?**

Our work at the Foundation is to ensure that Markey employees provide excellent care. For example, our Board helped facilitate the purchase of a Varian TrueBeam linear accelerator for very targeted, pinpoint radiation delivery. The technology on this particular equipment is so new that our machine was the first off the assembly line. The end result of this purchase is to maintain and enhance Markey's position as an absolute leader in radiation oncology. It's important for Markey employees to know that the Foundation is here to assist with the care they provide.

Who should be the next Markey Mover?  
 Email Markey's Research Communications Office  
 (mccrco@uky.edu) with your story idea.

# NOTEWORTHY

## WELCOME

**Linda Barber**, Markey Cancer Center Clinical Research  
**Jingying Cao**, Visiting scholar  
**Jim Carreer**, Markey Cancer Center Core Support  
**Kevin Dean**, Markey Cancer Center Clinical Research  
**Shishan Deg**, Visiting scholar  
**Marilia Dias**, Visiting scholar  
**Teresa Fan**, Faculty, Graduate Center for Toxicology  
**Robert Flight**, Post-doc  
**Brent Hallahan**, Markey Cancer Center Core Support  
**Richard Higashi**, Faculty, Graduate Center for Toxicology  
**Amanda Isaacs**, Markey Cancer Control Program  
**Andrew Lane**, Faculty, Graduate Center for Toxicology  
**Elisha Maxson**, Markey Cancer Center Core Support  
**Wanting Mi**, Visiting scholar  
**Hunter Moseley**, Faculty, Molecular and Cell. Biochemistry  
**Janice Ortega**, Post-doc fellow trainee  
**Shelly Scheer**, Staff  
**Rachel Stewart** Post-doc fellow trainee  
**Robin Walls**, Markey Cancer Control Program  
**Jennifer Whittington-Harris**, Post-doc fellow trainee  
**Erin Wolf-Horrell**, Graduate Student  
**Yanan You**, Post-doc

## MARKEY DIFFERENCE MAKERS

Congratulations to the following Markey Difference Makers for the second quarter of 2013.

Errol Allen	Crystal Kendrick
Farrah Cates	Linda Leach
Sheila Cummins	Jill Lee
Jenny Delap	Gay McGarey
Brandi Elliott	Toni Mucci
Garretson Epperly	Amy Penticuff
Lori Fritz	Stacey Clone
Katherine Gibson	Mark Stevens
Reda Gray	Donica Sweat
Kimberly Haire	

## LEADERSHIP APPOINTMENTS AND POSITION CHANGES

**Dean Hanlon, PT, MS**, appointed Clinical Operations Director for Ambulatory Services Administration.

**Vivek Rangnekar, PhD**, appointed Associate Director for Transdisciplinary Collaboration.

## NEW ONLINE: FIND A RESEARCHER

The Markey website features a new directory of Markey researchers, complete with updated profiles and links to key publications.

Email [mccrco@uky.edu](mailto:mccrco@uky.edu) for instructions on how to be included in the directory.

**Heidi Weiss, PhD**, appointed Associate Director for Shared Resources.

## PRESENTATIONS & PUBLICATIONS

Markey authors were responsible for 195 manuscripts and publications in journals from July through November 2013.

Wen YA, Stevens PD, Gasser ML, Andrei R, Gao TY. Down-regulation of phlpp expression contributes to hypoxia-induced resistance to chemotherapy in colon cancer cells. *Mol Cell Biol* 2013;33:4594-4605.

Chen M, Bresnick AR and O'Connor KL. Coupling S100A4 to Rhotekin alters Rho signaling output in breast cancer cells. *Oncogene* 32:3754-64, 2013.

Shu Y, Shu D, Haque F and Guo PX. Fabrication of pRNA nanoparticles to deliver therapeutic RNAs and bioactive compounds into tumor cells. *Nature Protocols* 8:1635-59, 2013.

Wu YD, Wang YF, Yang XWH, Kang TB, Zhao YX, Wang C, Evers BM and Zhou BHP. The Deubiquitinase USP28 Stabilizes LSD1 and Confers Stem-Cell-like Traits to Breast Cancer Cells. *Cell Reports* 5:224-36, 2013.

## GRANTS

**Chunming Liu, PhD**, was awarded National Cancer Institute funding for the study "Novel resveratrol analogs and colorectal cancer treatment."

**Jurgen Rohr, PhD**, was awarded National Cancer Institute funding for the study "Novel Aureolic Acid-Type Antitumor Agents."

**John Villano, MD, PhD**, was awarded National Cancer Institute funding for the study "Clinical characteristics and patterns of care for rare brain tumor sub-types."

**Binhua (Peter) Zhou, MD, PhD**, was awarded National Cancer Institute funding for the study "Regulation of Snail in breast cancer progression and metastasis."

# NOTEWORTHY, continued

## AWARDS, RECOGNITIONS & SELECTIONS

**Mark Evers, MD**, director of the University of Kentucky Markey Cancer Center, professor and vice-chair for research in the Department of Surgery and Markey Cancer Foundation Endowed Chair, has been elected the new president of the Southern Surgical Association.

**Jigisha P. Thakkar, MBBS**, presented a poster at the 11th annual AMA research symposium and won the best poster presentation of the International Medical Graduate Section. The poster was titled “Racial Disparities in Survival of Glioblastoma Not Initially Treated with Radiation.” Dr. Thakkar is a research assistant in neuro-oncology with Dr. John Villano.

The breast cancer research will be presenting three posters at the San Antonio Breast Cancer symposium earlier this month. The SABCS aims to achieve a balance of clinical, translational, and basic research, providing a forum for interaction, communication, and education for a broad spectrum of researchers, health professionals, and those with a special interest in breast cancer.

### The Great American Smoke-Out at UK

UK celebrated four years as a tobacco-free campus with a tobacco-free tailgate that included s'mores and giveaways during the Great American Smoke-Out on November 21.



### MCC Case Conference Series

This series offers guided discussions by oncology fellows and faculty, highlighting National Comprehensive Cancer Network guidelines and novel approaches to care. Lectures are held the 2nd Friday of each month in CC457 from noon –1 p.m. Continuing education is provided by UK Healthcare CECentral. Learn more about the series here.

## In Memoriam

Rose Kammer, Markey Volunteer Extraordinaire, died on September 28, 2013. In 1986, Rose began volunteering with the Markey Cancer Center. She was recognized at the National Philanthropy Day Ceremony in 2008 for her outstanding and selfless work at MCC, having logged more than 25,000 volunteer hours.

### Free to Breathe

Markey a major sponsor of the 3rd Annual Lung Cancer 5K Run/Walk and, in addition, team members raised \$845 to fund vital research and patient programs that will save lives.



### Faces of Lung Cancer Exhibit

Coordinated by the Kentucky Cancer Program, the “Faces of Lung Cancer” exhibit spreads awareness about lung cancer and prevention with photos of nine lung cancer survivors prominently displayed along with a brief personal statement. Kentucky leads the nation in both new incidences of lung cancer and deaths from the disease. Lung cancer kills nearly twice as many women as breast cancer, and it is the leading cause of cancer deaths for both men and women in the U.S.

The exhibit will travel across the state and be displayed in various communities over the next 12 months. Local exhibits, including educational materials and speakers, will be coordinated by KCP regional staff in collaboration with district cancer councils and other community groups.

KCP is a state-funded cancer control program jointly administered by the University of Kentucky and the University of Louisville. It includes 14 regional offices across the state. KCP at UK serves Central and Eastern Kentucky.

### TELL US ABOUT IT

Do you have an idea for a future edition of Markey Quarterly? A picture you'd like to see included? Email Markey's Research Communications Office ([mccrco@uky.edu](mailto:mccrco@uky.edu)) with your story idea.