



▶ UK MUSIC PROGRAM A FINALIST FOR LIVESTRONG COMMUNITY IMPACT PROJECT 2



▶ MEET THIS QUARTER'S MARKEY MOVER 3



▶ UPDATED AWARDS AND RECOGNITIONS 4

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MARKEY *quarterly*

SEASONAL NEWS FOR
MARKEY CANCER CENTER
FACULTY AND STAFF

TREATING THE WHOLE PATIENT

MARKEY'S INTEGRATIVE MEDICINE PROGRAM

Integrative Medicine Program combines successful initiatives into single program for complete patient care.

Markey is known for providing state-of-the-art care for cancer patients by incorporating the latest advances in surgery, chemotherapy and radiation medicine. In addition, Markey has had a number of initiatives developed to meet other needs of patients including care for pain from their disease, nausea from treatments, stress, anxiety, depression or a spiritual crisis. In order to better treat a cancer patient, these successful and growing initiatives have been combined into a single Integrative Medicine program.

Integrative Medicine combines non-mainstream health practices with conventional medicine and treatment. Through the Integrative Medicine program, patients of the Markey Cancer Center will have access to relaxation techniques, music therapy, art therapy, pastoral care, acupuncture and Jin Shin Jyutsu. In addition, the Integrative Medicine program is already looking to expand and provide other services to help the unique needs of our patients such as aromatherapy, narrative medicine, tai chi and massage therapy.

“As the only NCI-designated cancer center in the state, patients look to Markey for outstanding care and access to our novel clinical trials that we have provided over the years,” comments David Gosky, Director of Administration and Finance for Markey. “Patients currently have access to the caring services provided by our Psych-oncology department which include financial counseling, nutrition, educational and support services, lodging and transportation needs as well as many other services. At Markey, we treat more than the disease itself and we are excited to offer these additional integrative medicine services that our patients have come to expect from our center, as we treat the whole patient.”



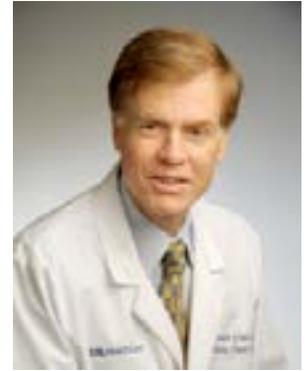
Jennifer Bradley practices Jin Shin Jyutsu on a patient.

MARKEY BY THE NUMBERS

Number of hospitals in the Markey Cancer Center Affiliate Network	9
Markey Cancer Research Day is May 22. Posters presented in 2013	142

FROM THE DIRECTOR

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



Markey’s role in Kentucky is to implement a comprehensive program of patient care, research, education and outreach activities focused on the reduction of cancer. We achieve this goal in a number of ways, such as acquiring the leading-edge technology to treat all types of cancer, building our partnerships throughout the Commonwealth and region, as well as creating programs that allow us to treat our patients fully, not just their disease.

For example, Markey is one of the first cancer centers in the country to offer the latest model of the Varian TrueBeam, and ours is the first in the world to be installed using the most modern iteration of the TrueBeam technology platform. This advanced radiotherapy system allows our radiation oncologists to deliver highly complex treatments more quickly on cancers in particularly sensitive areas with significant organ and tissue mobility, including abdomen, liver, lung, breast, and head and neck.

Another way we achieve our mission is by building the Markey Cancer Center Affiliate Network. Hardin Memorial Hospital is our ninth and newest partner, giving patients in and around Elizabethtown, Ky. access to the speciality and subspeciality care at Markey while also having access to clinical trials and advanced technology while staying closer to home for most treatments.

Finally, our growing Integrative Medicine program goes beyond treating the disease; it allows us to offer our patient’s the critical emotional support they need in times of pain and stress. Research shows that hospital patients who receive counseling and support for psychosocial distress have reduced hospitalizations, length of stays, physician visits, emergency department visits and prescriptions.

Our mission remains the same, but the lengths we go to in order to treat Kentuckians are constantly developing and expanding.

Psych-Oncology Services Offer Emotional Support for Unforeseen Side Effects of Cancer

Located on the third floor of Markey’s Whitney-Hendrickson building, the Psych-Oncology team is devoted to providing much-needed assistance to Markey’s patients. Every day, financial counselor Michele Ratchliffe, clinical dietitian Rachel Miller, American Cancer Society patient navigator Melanie Wilson, oncology social workers Jenny Delap and Angie Pennington, and licensed clinical social worker Joan Scales meet with new and ongoing patients to assess their needs on a more personal and emotional level.

Markey’s Psych-Oncology team was assembled specifically to deal with the non-medical side effects of cancer – addressing everyday stressors that may impede a patient’s ability to get the full benefits of medical care, including assistance with paying for medication, getting insurance, creating a living will or an advanced directive, help with transportation or lodging costs, or referrals to national programs that may offer further assistance.

Collectively, the team makes an estimated 35-40 contacts per week – they regularly check in through in-person visits, texts, and phone calls to make sure the patients continue to get what they need throughout the treatment and beyond.



The Psych-Once Team held an Open House on March 20.

UK Music Therapy Program Selected as Finalist for the LIVESTRONG Community Impact Project

Your vote could help improve integrative cancer care at Markey — the University of Kentucky Music Therapy Program is currently a finalist in competition for a major music therapy grant through the LIVESTRONG Community Impact Project.

The LIVESTRONG Foundation has partnered with Morristown Medical Center to offer 13 grants of \$15,600 across the U.S. The grant pays for a board-certified music therapist and consulting services to provide clinical services on an inpatient and outpatient basis for cancer patients. Adult and pediatric patients at the MCC and Kentucky Children’s Hospital would benefit from these services. Music therapy is proven to reduce stress and pain levels associated with illness and hospitalization.

Voting ends at 6 p.m. EST Friday, April 11. Cast your vote here.

MEET A MARKEY MOVER

BRITTANY CARPENTER, PHD CANDIDATE.

This quarter, Markey Quarterly introduces you to Brittany Carpenter, a PhD candidate in Dr. Kathleen O'Connor's laboratory.

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

I'm from Salyersville, Kentucky and went to Georgetown College where I studied Biology. Both of my grandmothers died of cancer and serve as my inspiration for doing cancer research. Experiences with my grandmothers, one of which was a patient of Dr. Susanne Arnold, gave me insight into the importance of clinical research and the need for a better understanding of this complex disease.

What is your role at the Markey Cancer Center?

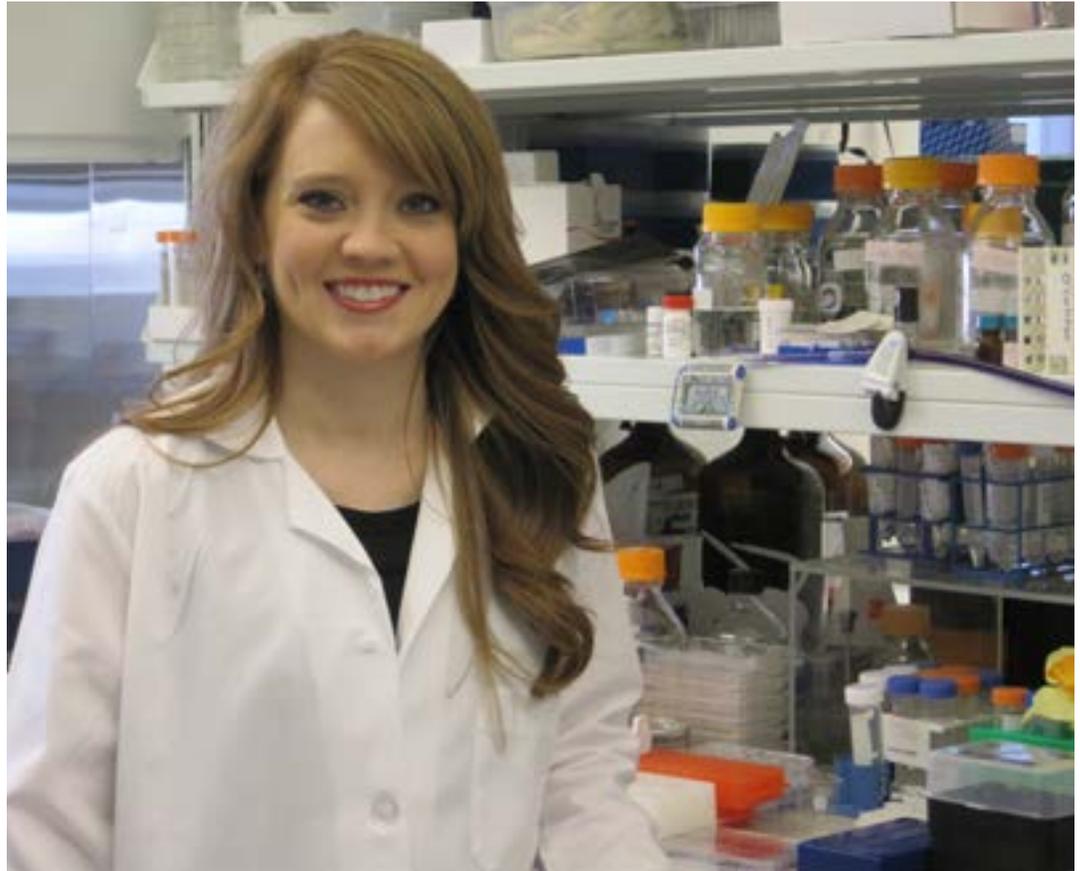
I work in Dr. Kathleen O'Connor's laboratory, where I do basic research on pancreatic cancer. I am interested in a specific cell surface molecule, the integrin $\alpha 6\beta 4$, and how this integrin promotes signaling through the epidermal growth factor receptor pathway. Ultimately, we are trying to understand how the integrin $\alpha 6\beta 4$ plays a role in the progression of cells to a malignant phenotype.

What do you like best about working in cancer research?

Markey is a great place to work because it fosters collaboration and offers a vast support network for students. I feel very fortunate to have the opportunity to interact with top researchers here at UK and from other institutions.

What should Markey Cancer Center employees know about your role in cancer research?

Basic research is important because we strive to attain knowledge that will ultimately lead to more effective therapies for patients. Understanding how cellular processes drive metastatic growth may allow for the development of drug targets that were not previously considered.



Just for fun, what is your favorite book and movie?

My favorite book is a set of three by Philip Pullman, His Dark Materials, because of the combination of fantasy, adventure, physics and theology. For favorite movie, I'd have to say Star Wars, especially Return of the Jedi. My favorite character is Luke Skywalker, but the Ewoks are a close second.

Meet Brittany at Cancer Research Day on May 22, 2014.

Brittany's poster will highlight data that indicate that integrin $\alpha 6\beta 4$ promotes a malignant phenotype in pancreatic cancer, in part, by regulating transcriptional expression of Ereg and Areg through NFAT1 and DNA repair-mediated DNA demethylation.

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

NOTEWORTHY

WELCOME

Denise Adegoke, Clinical Research Office
Linda Barber, Clinical Research Office
Ron Bruntz, Center for Environmental Systems Biochemistry
Teresa Cassel, Center for Environmental Systems Biochemistry
Nicole Catlett, Kentucky Cancer Registry
Marilia Diaz, Center for Environmental Systems Biochemistry
Tim Fahrenholz, Center for Environmental Systems Biochemistry
Katarina Fritz, Center for Environmental Systems Biochemistry
Shilong Han, Visiting Scholar
Melissa Hounshell, Community Program Director
Amanda Isaacs, Kentucky Cancer Registry
Tosia E. Jordan, Quality Assurance Program Manager
Ellen Lycan, Kentucky Cancer Registry
Lei Qi, Post Doc Scholar
Shelly Scheer, Kentucky Cancer Registry
Tim Scott, Center for Environmental Systems Biochemistry
Bagganhalli Somashekar, Center for Environmental Systems Biochemistry
Tegan Terrizzi, Markey Foundation
Pratima Tripathi, Center for Environmental Systems Biochemistry
Robin Walls, Kentucky Cancer Registry
Jianyong Xiao, Post Doc Scholar

MARKEY DIFFERENCE MAKERS

Congratulations to the following Markey Difference Makers for the first quarter of 2014.

Eugenia Caldwell	Scarlett Hawthorne
Farrah Cates	Gina Kemp
Kim Crockett	Laura March
Nadine Deehan	Deb O’Nan
Geoff Dixon	Janki Patel
Lori Fritz	Renee Rainey
Susan Gibson	Kara Reynolds
Reda Gray	Barbi Simon
Joy Haney	

PRESENTATIONS & PUBLICATIONS

Markey authors were responsible for 143 manuscripts and publications in journals from December 2013 through February 2014. Notable publications include the following.

Wang SY, Haque F, Rychahou PG, Evers BM, Guo PX. Engineered nanopore of phi29 DNA-packaging motor for real-time detection of single colon cancer specific antibody in serum. *ACS Nano* 2013;7:9814-9822.

Liu YX, Gilbert M, Kyprianou N, Rangnekar V, Horbinski C. Mutant idh1 suppresses prostate apoptosis response-4 in gliomas. *Neuro-Oncology* 2013;15:18-18.

Butler KM, Rayens MK, Adkins S, Record R, Langley R, Derifield S, McGinn C, Murray D, Hahn EJ. Culturally-specific smoking cessation outreach in a rural community. *Public Health Nurs* 2014;31:44-54.

Jin L, Craven RJ. The rak/frk tyrosine kinase associates with and internalizes the epidermal growth factor receptor. *Oncogene* 2014;33:326-335.

Gilbert MR, Liu YX, Neltner J, Pu H, Morris A, Sunkara M, Pittman T, Kyprianou N, Horbinski C. Autophagy and oxidative stress in gliomas with idh1 mutations. *Acta Neuropathol* 2014;127:221-233.

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.

GRANTS

James Bryson, PhD, was awarded National Cancer Institute funding for the study “Modulation of Colitis-associated Cancer by Cyclosporine A.”

John Yannelli, PhD, was awarded National Cancer Institute funding for the study “Evaluation of T Cell Response to Cisplatin Resistant NSCLC.”

AWARDS, RECOGNITIONS & SELECTIONS

Allan Butterfield, PhD, was recently awarded the 2014 Alkmeon International Prize, an accolade that puts him in the same company as many Nobel Laureates and members of the National Academy of Sciences. In April, he will be presented the award in Rome, Italy, by Professor Giuseppe Nistico of the University of Rome on behalf of the European Brain Research Institute, which sponsors the Alkmeon International Prize. In addition, he will be giving a lecture about his work at the University of Rome II (Tor Vergata) and a seminar in biochemistry at the University of Rome I (La Sapienza). Butterfield’s research has blazed



NOTEWORTHY, continued

the trail for research on the concept of oxidative stress as a potentially fundamental underlying aspect of Alzheimer's disease, and many other labs across the country have begun pursuing their own studies into the field.

Elisia Cohen, PhD, was the faculty recipient of the 2014 Sarah Bennett Holmes Award. Dr. Cohen, chair of the UK Department of Communication in the College of Communication and Information, has collaborated with researchers in the colleges of Public Health and Medicine to develop interventions to reduce the burden of cervical cancer and HPV-related disease among Kentucky women. Cohen has also worked in conjunction with the Markey Cancer Center and the Rural Cancer Prevention Center. The award recognizes one female faculty member and one female staff member who promote growth and well-being of women at the university and across Kentucky.



Ann Coker, PhD, MPH, is the recipient of a Visionary Voice Award, a national award that recognizes the creativity and hard work of individuals who have demonstrated outstanding commitment to end sexual violence. The award is sponsored by the National Sexual Violence Resource Center. Dr. Coker is nationally recognized as an expert on the effects partner violence on women's health.



Dr. Coker has worked extensively in the field of women's health, particularly in areas of intimate partner violence, interventions to reduce the risk of violence that impact both men and women's health, women's chronic diseases, and reproductive and sexual health. Among other projects, she is currently investigating whether violence against women results in disparities in cancer care for women.

B. 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 accepted the position of Vice Dean for Academic Development in the College of Medicine.

Robin Vanderpool, DrPH, received an OUTSTANDING score on her recent grant submission to the American Cancer Society.

Joy Zhang, PhD, received a GREAT score (in the ninth percentile) on her recent R01 submission to the National Institute of Environmental Sciences.

Register for Markey Cancer Research Day

Taking place on May 22 at the UK Singletary Center for the Arts, this one-day event showcases current cancer research projects at UK. Researchers, including students, post-doctoral fellows, faculty and staff, will have the opportunity to share their work in an atmosphere of learning and collaboration through several avenues.

- Poster Sessions with researchers whose work highlights notable aspects of the cancer program at UK
- Oral Presentations (invited)
- Luncheon
- Susan B. Lester Memorial Lecture, presented by Harold Varmus, MD, Director, NCI

Register here by May 8 to guarantee your attendance!



Join Markey's Relay For Life Team

Relay for Life of Fayette County is May 30. To join the UK Markey Cancer Center Marvels or to make a donation, [click here](#).

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 second 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](#).

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) with your story idea.