



IUSM Newsroom »

IU researchers: Pancreatic cancer patients with particular gene signature may benefit from personalized treatment

Feb. 26, 2015

INDIANAPOLIS – Cancer researchers at Indiana University report that about 15 percent of people with pancreatic cancer may benefit from therapy targeting a newly identified gene signature.

Using data from the Cancer Genome Atlas, Murray Korc, M.D., the Myles Brand Professor of Cancer Research at the [Indiana University School of Medicine](#) and a researcher at the [Indiana University Melvin and Bren Simon Cancer Center](#), and colleagues found that a sub-group of pancreatic cancer patients who possess a strong angiogenic gene signature could benefit from personalized therapies that cut off the pathways that feed the cancer's growth.

This particular gene signature enables abnormal blood vessels to form in tumors, which feeds the tumor's growth.

The finding, published online Feb. 25 in the journal *Oncotarget*, is new because the prevalence of this signature was not previously known. The authors also demonstrated for the first time that endothelial cells, the main type of cell found in the inside lining of blood vessels, can produce molecules that directly stimulate the growth of pancreatic cancer cells.

"We showed that endothelial cells can stimulate the growth of pancreatic cancer cells and that by silencing or inhibiting certain pathways – JAK1–2 and STAT3 – we can alter that effect," Dr. Korc explained. "We demonstrated that it is possible to target these pathways and prolong the survival of genetically modified mice whose pancreatic cancers also have a strong pro-angiogenic gene signature."

Thus, for people with a strong pro-angiogenic gene signature, the finding suggests that they may benefit from targeted therapy that is directed against one of these pathways.

An important feature of the study was to demonstrate that it is possible to implant in mice small biopsy samples obtained from patients undergoing endoscopic procedures and to generate human tumors in these mice. When the original human tumor had evidence for angiogenesis, the implanted human tumor also exhibited angiogenesis in the mouse. Additional studies are necessary to confirm that these approaches could guide the design of precision medicine using targeted therapies, Dr. Korc said.

The need for new therapies for pancreatic cancer patients is great as only 7 percent of people with the disease survive more than five years after diagnosis. According to the American Cancer Society, there will be an estimated 48,960 new cases of pancreatic cancer and 40,560 deaths from the disease in 2015.

Co-authors of the study were Jesse Gore, Ph.D.; Stuart Sherman, M.D.; Harvey Cramer, M.D.; Hai Nguyen, M.D.; Kelly Craven, Monica Cheng, and Julie Wilson, all of IU School of Medicine, and Gregory Cote M.D. M.S., formerly of IU School of Medicine and now at the Medical University of South Carolina.

The study was made possible, in part, by grant CA-075059 awarded by the National Cancer Institute of the National Institutes of Health.

For the past three decades, Dr. Korc's work has focused on abnormal growth-factor signaling in pancreatic cancer. He has also been studying mouse models of pancreatic cancer, with the goal of designing novel therapeutic strategies.

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Dr. Gore, the first author on the study, is assistant research professor in the Department of Medicine and, like Dr. Korc, has focused his research exclusively on pancreatic cancer.

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[IU Newsroom](#) » Lilly Foundation commits \$1 million to support AMPATH Oncology Institute in Kenya

Lilly Foundation commits \$1 million to support AMPATH Oncology Institute in Kenya

Feb. 4, 2015

INDIANAPOLIS -- In conjunction with World Cancer Day, Eli Lilly and Company announced a commitment of \$1 million to AMPATH in Eldoret, Kenya. The funding, provided by the Lilly Foundation, will help equip a new oncology center, hire additional staff and train local health care professionals -- ultimately allowing AMPATH to screen, treat and provide palliative care to more people, many of whom lack access to quality health services.

AMPATH (Academic Model Providing Access to Healthcare) was created in response to the HIV crisis in Western Kenya in 2001. It is built on a partnership with Moi Teaching and Referral Hospital and the Moi University School of Medicine in Eldoret, Kenya, and a consortium of North American academic health centers, led by Indiana University School of Medicine. AMPATH has continually expanded its successful HIV approach to include more diseases, including diabetes, hypertension and cancer. It now provides health care services to a population of 3.5 million in Western Kenya.

As an extension of this work, the AMPATH Oncology Institute was launched in 2009 -- with a single physician and nurse. Public-private partnerships have allowed the institute to expand its staff and services to a current team that includes 10 clinicians, six core nurses and an oncology pharmacist. The institute received nearly 10,000 patient visits last year and screened more than 10,000 women for breast cancer and 20,000 women for cervical cancer. But demand far outstrips supply: the institute is one of only two cancer centers in Kenya, meaning that nearly half of the country's 42 million people must rely on the AMPATH Oncology Institute for screening and care.

Much of this screening and care is provided in substandard facilities -- including a tent. That will change with the opening of AMPATH's new four-story Chandaria Cancer and Chronic Diseases Center later this year.

The Lilly Foundation's funding will help equip the center's new oncology outpatient center and allow for the hiring of additional doctors, physicians' assistants and other staff to screen and treat more people. Additionally, the funding will support the creation of a research and training institute focused on cancer prevention, screening, treatment and supportive care. The institute will help build much-needed capacity among local healthcare providers.

The \$1 million commitment will be paid out over four years, from 2015-2018. This new funding builds on a longstanding partnership between Lilly and AMPATH. Since 2002, Lilly has donated nearly \$60 million in medicines to AMPATH to improve health for people with diabetes, mental illness and cancer.

To learn more about this ongoing partnership as explained by one of the program's founders, Joe Mamlin, M.D., professor emeritus of medicine at the IU School of Medicine and AMPATH field director, view this short [video](#).

"AMPATH continues to demonstrate that it is possible to provide quality care and services—even in the toughest settings, for people in great need," said Sue Mahony, Ph.D., senior vice president and president, Lilly Oncology. "We are honored to further our collaboration with AMPATH and be part of this growing oncology effort. It's exciting to be able to make a meaningful difference for people in Kenya today, while finding new ways to help more people tomorrow."

In addition to the \$1 million in funding, AMPATH and Lilly are exploring opportunities for Lilly employees to participate in skills-based volunteer assignments in conjunction with the AMPATH Oncology Institute.

"To me, one of the most important words for this partnership is *rafiki*, meaning 'friend' in Swahili," said Patrick J. Loehr, M.D., director of the Indiana University Melvin and Bren Simon Cancer Center, associate dean for cancer research and co-founder of the AMPATH Oncology Institute. "All successes in AMPATH and AMPATH Oncology stem from belief in an authentic international partnership, based on committed friendship and trust, that serves cancer patients wherever they live."



The Chandaria Cancer and Chronic Diseases Center under construction in Eldoret, Kenya, will open in 2015.



[Print-Quality Photo](#)

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About AMPATH

AMPATH, the Academic Model Providing Access to Healthcare, is a partnership between Moi University School of Medicine, Moi Teaching and Referral Hospital in Eldoret, Kenya, and a consortium of 11 academic health centers led by Indiana University. Together with Kenya's Ministry of Health and the U.S. government, AMPATH delivers health services, conducts health research and develops leaders in health care for both North America and sub-Saharan Africa.

About AMPATH Oncology Institute

The cancer care services of AMPATH have evolved from a targeted program in HIV/AIDS cancers to providing general cancer care. Driven by the needs of the Kenyan health care providers, AMPATH Oncology offers cancer care that would otherwise be out of reach for most patients. The comprehensive multidisciplinary program offers screening, diagnosis, treatment and palliative care. The AMPATH Oncology Institute provides access to quality cancer care to the 18 million people residing in western Kenya.

About Eli Lilly and Company

Lilly is a global healthcare leader that unites caring with discovery to make life better for people around the world. We were founded more than a century ago by a man committed to creating high-quality medicines that meet real needs, and today we remain true to that mission in all our work. Across the globe, Lilly employees work to discover and bring life-changing medicines to those who need them, improve the understanding and management of disease, and give back to communities through philanthropy and volunteerism.

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WFYI, IU Simon Cancer Center and partners present 3 cancer conversations in Indianapolis

Cancer -- its evolution as a disease, the latest in treatment directions, and the personal stories of those living with the disease -- will be the focus of a Ken Burns documentary and a special edition of "Sound Medicine Radio Hour" airing next month, as well as three related public conversations being held in Indianapolis.

The three-part, six-hour documentary, "Ken Burns Presents, Cancer: The Emperor of All Maladies," scheduled for broadcast at 9 p.m. March 30-April 1 on WFYI 1, (channel 20), is the centerpiece of the cancer focus. Based on the Pulitzer Prize-winning book, "The Emperor of All Maladies: A Biography of Cancer," by Siddhartha Mukherjee, M.D., the documentary takes a sweeping historical look at the disease, interweaves stories about contemporary patients and explores the scientific breakthroughs that may finally bring us to a cure.

Additionally, "**Sound Medicine Radio Hour**," which airs on 90.1 WFYI Public Radio each week, will broadcast a special episode at 2 p.m. Sunday, March 22 featuring Larry Einhorn, M.D., and his patient John Cleland who was cured of testicular cancer 40 years ago because of Einhorn's landmark treatment.

In conjunction with these two programs, WFYI Public Media will also host three public conversations about cancer with local experts from the University of Indianapolis and its School of Nursing and Center for Aging and Community, the Indiana University Melvin and Bren Simon Cancer Center, and others. The conversations will bring together physicians, nurses, clergy and patients with audiences to discuss philosophical and psychological issues, life-extending therapies, clinical trials and personalized therapies and the integration of spirituality with illness and treatment.

Three community partners for the events are the IU Simon Cancer Center, the University of Indianapolis and its School of Nursing and Center for Aging and Community, and the Restoration Baptist Church.

The conversations are:

- "**Living with Hope, Coping with Uncertainty**"
6:30 p.m. Tuesday, March 10 at University of Indianapolis,

Christel DeHaan Fine Arts Center

- **“New Directions in Treatment”**
6:30 p.m. Wednesday, March 18 at IUPUI Campus Center Theatre
Free parking in Vermont Street Garage
- **“Spirituality and Cancer”**
6:30 p.m. Thursday, March 26 at Restoration Baptist Church (1502 N. New Jersey St.)

All events are free and open to the public. Learn more and register at www.wfyi.org/events. Additionally, all events will be videotaped and posted to www.wfyi.org following each conversation.

The three conversations will be extended online at www.soundmedicine.org, where central Indiana residents are sharing their stories about living with and surviving cancer.

LEARN MORE

Visit the Story of Cancer in Indianapolis and watch the trailer

Visit Ken Burns Presents Cancer: The Emperor of all Maladies



INDIANA UNIVERSITY

IU SIMON CANCER CENTER

Indiana University Melvin and Bren Simon Cancer Center



IUSCC news

February 2015

News briefs

Pacers honor Drs. Einhorn, Hanna during March 23 game

The Indiana Pacers will honor IU physician scientists **Lawrence Einhorn**, MD, and **Nasser Hanna**, MD, for their contributions to testicular cancer research during the game against the Houston Rockets on Monday, March 23.



Hanna

The Indiana Heroes Award program presented by Citizens Energy Group serves as one of the premier community outreach programs of the Indiana Pacers. This program honors individuals who have made an overwhelming impact on the lives of others, and who, through their commitment and humanitarian spirit, have made exceptional and lasting contributions to the community and state.

During the first time-out in the second quarter, Drs. Einhorn and Nasser will be honored at center court.

Doors open at 6 p.m. and tip-off is at 7 p.m. at Bankers Life Fieldhouse. Tickets are \$16 for upper balcony, \$30 for lower balcony, and \$75 for club level corner.

To order tickets, visit www.pacersgroups.com/research and enter the code "Pacers." Proceeds from ticket sales will go to testis cancer research at IU.

IU School of Medicine opens web portal to encourage industry-academic collaboration

The Indiana University School of Medicine has launched an initiative and accompanying web site to encourage more collaboration between private industry and researchers at the medical school.

[full story](#)>

Komen Tissue Bank collecting tissue at Baylor

Staff from the [Komen Tissue Bank at the IU Simon Cancer Center](#) are currently in Houston for a breast tissue collection. The Lester and Sue Smith



TISSUE BANK AT THE
IU SIMON CANCER CENTER

Breast Center at Baylor College of Medicine, Susan G. Komen Houston, and Houston Pink Ribbons Project teamed up to offer the collection event

for women in the Houston area on Feb. 28. The tissue bank is the only normal breast tissue bio-repository of its kind in the world. As such, it is uniquely positioned to characterize the molecular and genetic basis of normal breast development and compare it to the different types of breast cancer. The bank was established expressly for the acquisition of normal tissues — breast tissue, epithelial and stromal cell lines, serum, plasma and DNA — from volunteer donors with no clinical evidence of breast disease and/or malignancy, providing a resource to investigators around the globe. By using samples from women without breast cancer, researchers will be able to determine the differences between healthy and cancerous tissues, which will lead to a better understanding of the disease. To date, more than 4,000 women have donated tissue and more than 10,000 women also have donated DNA and blood. [Watch this Houston NBC affiliate story.](#)

IUSCC joins OncLive’s partnership alliance

The IU Simon Cancer Center has joined OncLive’s Strategic Alliance Partnership initiative to share news about the center’s research and education programs.

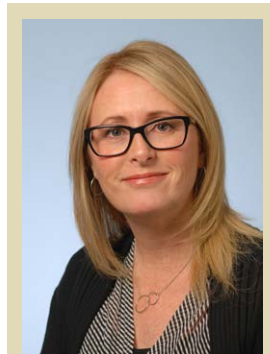


Through the new alliance, OncLive’s editorial and marketing teams will partner with the cancer center to highlight accomplishments such as the center’s recent National Institutes of Health grant to study cervical cancer in Kenyan women and the discovery of a simple blood test that could help diagnose pancreatic cancer. [OncLive.com](#) is the official Website for Intellisphere’s Oncology Specialty Group, which

publishes *Oncology & Biotech News*, *OncologyLive*, *Oncology Nursing News*, and *Contemporary Oncology*.

New events coordinator/administrative support specialist at IUSCC

Kristen Scott has been named the IU Simon Cancer Center’s events coordinator/administrative support specialist. Scott will provide support to the



Scott

cancer center’s associate director for education, coordinating all seminars, special events, and functions that are focused on education for cancer center members, faculty, and staff. The annual Cancer Research Day and the Future Scientist Program are just two events with which she will assist. She will also support the associate director for administration by coordinating events, meetings, and retreats for the center’s research programs as well as for the [executive committee](#) and [leadership council](#).

Scott most recently was the executive assistant at the Eugene and Marilyn Glick Eye Institute. She holds a bachelor’s of science degree in management from IU’s School of Public and Environmental Affairs.

Scott is located in Walther Hall, Room 528. She can be reached at 278-0070 and kscott4@iupui.edu.

What services does the CTO provide?

The [Clinical Trials Office](#) (CTO) has produced a catalog of its services for cancer center members. The CTO provides:

- Protocol Management
- Regulatory Support
- Data Systems
- Budgeting/Contracting
- Education/Training
- Quality Assurance and Monitoring
- Multicenter Clinical Research Coordination

View the online [catalog](#).

Reminders

Society for Immunotherapy of Cancer is accepting applications for 2015 postdoc fellowship

The Society for Immunotherapy of Cancer has announced that it is accepting applications for the 2015 postdoctoral fellowship in cancer immunotherapy in partnership with Merck.

The SITC-Merck Cancer Immunotherapy Clinical Fellowship Award will provide funding support in the amount of \$100,000 for one year of salary, equipment, supplies and fringe benefit support to a young investigator. The award also includes travel support to attend an upcoming SITC Annual Meeting and the opportunity to present their work to the cancer immunotherapy community at this venue.

Applications will be accepted until Monday, March 9. Visit [SITC](#) for complete details.

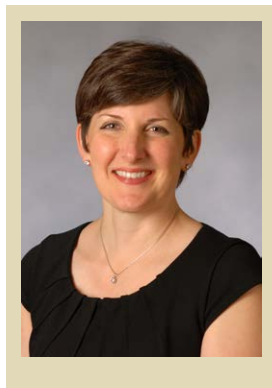
Cincinnati Cancer Institute hosts survivorship program in March 2015

The University of Cincinnati Cancer Institute's Cancer Survivorship Program is hosting "Transforming Cancer Survivorship Through Research and Best Practice," from 8 a.m. to 4 p.m., Friday, March 27, at the Kingsgate Marriott Conference Center, 151 Goodman Drive, Cincinnati.

The event is planned to educate and meet the needs of physicians, nurses, psychologists, residents, medical students, social workers, counselors, dietitians and other oncology health professionals on the best practices and latest research for cancer survivorship. Julia Rowland, PhD, director of the National Cancer Institute Office of Cancer Survivorship, will be the keynote speaker.

For the full agenda, abstract requirements or to register, visit www.uchealth.com/events/transformingsurvivorship. Questions? Contact Shanah Cole at (513) 558-9908.

Cancer center members in the news



- **Janet Carpenter**, PhD, RN, is one of six IU researchers promoted to distinguished professor, the highest rank the university can bestow on its faculty. She is the the Sally Reahard Chair of Nursing and associate dean for research at the IU School of Nursing. She is considered a pioneer in two areas of women's health research: symptom management by breast cancer patients and research methodologies for measurement of hot flashes. Dr. Carpenter's daily interference scale has been translated into

Carpenter

12 languages and is recommended by the National Cancer Institute for use in treatment trials. She has been called "arguably the leading expert" in developing strategies for menopausal symptom assessment and management.



Lin

- **Chien-Chi Lin**, PhD, has been selected to receive a National Science Foundation Faculty Early Career Development Program Award. This award recognizes the highest level of excellence among early-stage researchers. NSF awarded the \$490,000 grant for Lin's project entitled "CAREER: A Reversible Dynamic Hydrogel System for Studying Stemness and Drug Responsiveness of Cancer Stem Cells." The award is among NSF's most prestigious awards that support junior faculty who exemplify the role of teacher-scholars

through outstanding research, excellent education, and the integration of education and research within the context of the mission of their organizations, according to the NSF.

- **Kathy Miller**, MD, has been named the second holder of the Ballvé Lantero Chair in Oncology, pending Board of Trustees approval. Dr. Miller's title of Ballvé Lantero Scholar in Oncology will be changed to Ballvé Lantero Professor of Oncology. She will also retain her current title of professor of medicine. The first holder of the chair was George Sledge Jr., MD.

- **Patrick Loehrer**, MD, recently was awarded a [Distinguished Engineering Alumni Award](#) from the Purdue University College of Engineering for his lifesaving cancer research and other achievements that have impacted human lives. Purdue presents the award to alumni who have distinguished themselves in any field in ways that reflect favorably on the university, the engineering profession, or society in general.

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