



Exp  
Close  
Expand  
Clo  
Sch

Google

[Subscribe to InScope](#) [Contact](#)

[IUSM Newsroom](#) »

# Reactions to drugs results in poorer outcomes for African American breast cancer patients, IU genetics research reveals

**Oct. 19, 2017**

African American women participating in a clinical study on breast cancer had more side effects and poorer survival rates than did women of European ancestry, according to a recently published Indiana University study that identified ethnicity through genetics, a first in this type of research.

Instead of relying on self-reporting of race, the researchers utilized genetic information from a National Cancer Institute-sponsored study that compared the therapy-induced toxicity of three standard adjuvant drugs. That national study looked at anthracycline-induced congestive heart failure, taxane-induced peripheral neuropathy and bevacizumab-induced hypertension and compared the results between patients of African ancestry and patients of European ancestry.

All the women were genetically tested for ethnicity to increase the accuracy of reporting ancestry and to look for biomarkers that may provide clues to how patients would respond to the three chemotherapy agents.

[Bryan P. Schneider](#), MD, associate professor of medicine and of medical and molecular genetics and [Vera Bradley Investigator in Oncology at IU School of Medicine](#), said the initial results of the 5,000 patient, NCI-sponsored, cooperative group study raised other questions he wanted to explore.

The adjuvant study showed that ancestry was a factor when comparing side effects. “We found that African Americans had more severe side effects in general. We were further able to identify genetic markers--beyond those that determine ancestry--that were able to tell whether an African American patient might be at an extraordinarily high risk for some of these severe side effects,” said Dr. Schneider, a researcher at the [Indiana University Melvin and Bren Simon Cancer Center](#).

Importantly, Dr. Schneider and his team wanted to evaluate whether there was a direct connection between the side effects and the overall effectiveness of the medication. [These findings were published in the Journal of Clinical Oncology Precision Oncology](#) and compared outcomes between 386 patients of African ancestry and 2,473 patients of European ancestry.

“What we found was that African Americans were markedly more likely to have reductions in dosing of an important part of the chemotherapy (the taxane) because of their side effects and these reductions in doses led to a less favorable outcome from a breast cancer standpoint,” he said.

“Prior studies have demonstrated that African American patients don’t do as well because of socio-economic factors or maybe the biology of the tumor,” Dr. Schneider said. “These are the first data, however, to show that one of the variables that impacts outcome is a greater likelihood of drug side-effects which limits the receipt of the very chemotherapy drugs

needed for better outcomes.”

Oncologists commonly reduce dosages or the frequency of treatments in response to severe side effects to mediate illness and discomfort experienced by cancer patients.

Dr. Schneider said this study increases awareness of the multiple important aspects of treatment, which must be considered for African American breast cancer patients. However, the findings also give rise to new questions, he said.

“Can we identify a group of African American patients who won’t experience toxicity and might do well with the current standard therapies? Can we further identify the group of patients that is not going to do well before therapy and do something about it, such as using alternative drugs that might be equally effective but less toxic? Can these genetic findings provide insight into the cause of the side effects and result in ideas for novel drugs designed to prevent the side effects all together?” he posited.

This research was supported by funding from the National Cancer Institute, a Susan G. Komen for the Cure Promise Award and the Vera Bradley Foundation for Breast Cancer.

Dr. Schneider is a member of the [Vera Bradley Foundation for Breast Cancer Research Laboratories](#), which include more than 30 researchers at IU School of Medicine focused on treating, preventing and curing breast cancer.

Print **PRINT** Addthis  
SHARE



Bryan P. Schneider, MD

[Print Quality Photo](#)

## Media Contacts

### Michael Schug

Indianapolis

Office 317-278-0953

[maschug@iupui.edu](mailto:maschug@iupui.edu)





[IUSM Newsroom](#) »

# Lu named Vera Bradley Foundation Professor of Breast Cancer Innovation at IU School of Medicine

Oct. 25, 2017

A nationally recognized cancer biologist has been named the Vera Bradley Foundation Professor of Breast Cancer Innovation at Indiana University School of Medicine.

[Xiongbin Lu](#), PhD, is also professor of medical and molecular genetics at IU School of Medicine and a member of the [Experimental and Developmental Therapeutics research program](#) at the Indiana University Melvin and Bren Simon Cancer Center.

“We share Vera Bradley Foundation’s ultimate goal to end cancer,” Dr. Lu said. “Being named the Vera Bradley Foundation Professor is both an honor and an inspiration. What better motivation is there for combining creative strategies with a dedicated passion for ending breast cancer?”

He added: "For me, it really starts with a very simple question, which is ‘what is normal?’ To understand how cancer develops and progresses, we really need to understand the basic mechanisms such as cell growth and the transformation of normal cells to cancer cells," he said.

Dr. Lu focuses on cancer genomics and targeted therapies. He searches for genetic flaws in and around breast tumors that can be exploited for new ways to treat breast cancer. He also studies the root causes of why chemotherapy stops working and collaborates with other researchers to develop nano-therapies that target microscopic and resistant cancer.

He also studies the cellular pathways that correct DNA damage, dysregulation of which can lead to cancer initiation and growth. This process, known as DNA damage response, was his focus when he identified a key protein regulator, Wip1, responsible for controlling DNA damage caused by toxic agents such as chemotherapy or radiotherapy. He also has identified several other important proteins that control tumor growth.

Dr. Lu currently is the principal investigator of four National Institutes of Health-funded projects, and many of his scientific papers have been published in prestigious journals such as Nature, Cancer Cell, Molecular Cell, and Nature Communications.

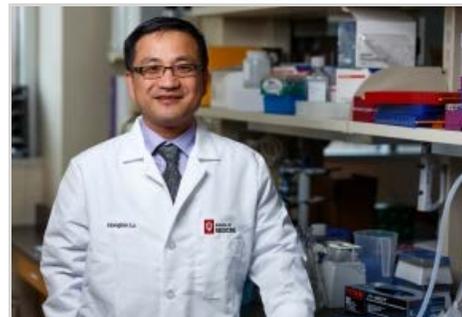
Previously, Dr. Lu was an associate professor in the Department of Cancer Biology at the University of Texas M.D. Anderson Cancer Center in Houston. Earlier he held positions at the University of South Carolina in Columbia and Baylor College of Medicine in Houston.

He earned his bachelor's degree in biological sciences from Zhejiang University in China and his doctorate in biochemistry from Shanghai Institute of Biochemistry in China. He completed post-doctoral work in retrovirology at the National Institutes of Health and in cancer biology at Baylor College of Medicine.

He is a member of several professional organizations, including the American Cancer Society, American Association for Cancer Research and the Society of Chinese Biochemists in America. He is also a member of the [Vera Bradley Foundation for Breast Cancer Research Laboratories](#), which include more than 30 researchers at IU School of Medicine focused on treating, preventing and curing breast cancer.

His wife, [Xinna Zhang](#), PhD, also joins IU School of Medicine as assistant professor of medical and molecular genetics.

[Print](#) [PRINT](#) [Addthis](#)  
[SHARE](#)



Xiongbin Lu, PhD

[Print Quality Photo](#)

## Media Contacts

### Michael Schug

Indianapolis

Office 317-278-0953

[maschug@iupui.edu](mailto:maschug@iupui.edu)



## Dr. Shahda, pancreatic and colon cancer expert, becomes U.S. citizen

By Brian Hartz

Friday, October 6, 2017



Safi Shahda, M.D., proudly displays the U.S. flag after becoming a citizen.

Safi Shahda, M.D., is basking in the glow of achieving something that some people might take for granted: U.S. citizenship.

[Dr. Shahda](#), who conducts pancreatic and colon cancer research at the Indiana University Melvin and Bren Simon Cancer Center, immigrated to the States from war-ravaged Syria. He took the U.S. Oath of Allegiance and became a citizen earlier this year, after first completing an extensive background check and an oral exam in October 2016.

Dr. Shahda, 36, first visited the United States in 2003. In 2007, he returned to IU School of Medicine for his residency following the completion of medical school at the Damascus University Faculty of Medicine. He also completed a hematology/oncology fellowship at the IU Simon Cancer Center. In 2013, he joined the IU School of Medicine faculty and currently is an assistant professor of clinical medicine specializing in gastrointestinal oncology.

“Citizenship was my goal from the beginning, even before the war in Syria, which has been going on for six years now,” he said. “I came to the United States with an intention to complete my education and focus on cancer research because I felt that I would not be able to achieve my goals if I went back to Syria.”

“I came to the United States with an intention to complete my education and focus on cancer research because I felt that I would not be able to achieve my goals if I went back to Syria.”Safi Shahda, M.D.

“If I had remained in Syria, I would have had limits on what I could do, and after talking to people and hearing about the opportunities in the United States, I realized it’s a wide open door for people like myself. So, ever since I came here, I had the intention to potentially become a cancer researcher, and I knew if I returned to Syria, there would be no way I could achieve this goal.”

### INSPIRED TO MAKE A DIFFERENCE

Family was another strong reason for Dr. Shahda to forge a new destiny for himself in the



Dr. Shahda

United States. Dr. Shahda was a boy of 10 when his mother developed breast cancer and died in 1990 at the age of 33.

“I saw her going through cancer and treatment, and I didn’t understand a thing,” he recalled. “But a big part of me was influenced by that, seeing my mother going through this suffering.”

Dr. Shahda says his lack of understanding at the time was fueled by the stigma and superstitions surrounding cancer in Syria. “Even now, in 2017, people do not, in Syria, mention the word ‘cancer’ when they are referencing cancer,” he said. “If you say it, you’re making it so. That type of thing. Back in 1990, for them to speak openly about cancer ... was not culturally acceptable.”

Though devastated by the loss of his mother, Dr. Shahda gained a whole new family a few years after arriving in the United States. His wife, Jessica, is a native Hoosier. They met in 2009 while she was working as a nurse practitioner at an Indianapolis hospital. They are the parents of a toddler and a newborn.

Family is important to Dr. Shahda, and he regrets that the political situation in Syria prevents him from being with his parents and siblings. Dr. Shahda’s father wasn’t able to leave Syria to attend his son’s wedding or meet his grandson. Because of the war and his immigration status at the time, Dr. Shahda was not able to return to Syria to attend his sister’s wedding.

“Certainly, I miss my family,” he said. “I haven’t seen them for a long time. Technology, like Skype, makes it a little bit easier, but it’s not a replacement. They see what I’ve achieved so far and what I’ve done, and know this is the right thing for me.”

Dr. Shahda said he also misses Damascus, one of the cultural and historical capitals of the Middle East. “I went to Damascus University for medical school and spent about nine years in the city. I love the historic places in Damascus. I miss walking there in the middle of the night and enjoying the beauty and vibrancy of such a historic city. I wish I could go back and take another walk there, but not now.”

Here, he’s making a profound difference in the lives of his fellow Americans. Since joining the IU medical school faculty, he’s become the medical director for hematology and oncology at [Eskenazi Health](#), and he’s involved in numerous research projects, in addition to treating patients, at [IU Health](#).

“I’m helping to increase opportunities for research at Eskenazi hospital, improve the structure of our oncology clinics, and increase the research staff presence in the hospital to the point where we offer patients the same standards that we offer our patients at the IU Simon Cancer Center,” he said. “I developed several clinical trials in an area of pancreatic cancer and colon cancer with the intention to improve on the standard of care. This involves testing new drugs or new approaches to improve and build on what we already have established.

“

“I developed several clinical trials in an area of pancreatic cancer and colon cancer with the intention to improve on the standard of care. This involves testing new drugs or new approaches to improve and build on what we already have established.”

Safi Shahda, M.D.

“Also, I’m collaborating with scientists to develop biomarkers that will lead to more personalized treatment for patients. Another area of my research involves understanding why patients with cancer lose weight and muscle mass.”

Dr. Shahda said he is grateful for the opportunities his new citizenship affords him, and he knows he will never become too busy to stop and reflect on his journey and appreciate his new home country.

“I don’t think I can be any happier,” he said. “As a family, we love our lifestyle here. It has been the right move. It’s a place where I can make a difference, a place of opportunities where doors keep opening for me to do the things that I love doing. I can’t be grateful enough for the country and the people that welcomed me, and for all the opportunities I have

had. I am honored to have become a United States citizen and to call Indiana home.”

*Brian Hartz, an IU graduate and a Hoosier native, is a seasoned journalist and writer who has lived in Bloomington as well as Auckland, New Zealand; Toronto, Ontario; and Victoria, British Columbia. Brian now lives in St. Petersburg, Fla.*

- [News](#)
- [News Archives](#)
- [Sound Medicine](#)
- [Publications](#)

 [Copyright](#) © 498822017 The Trustees of [Indiana University](#), [Copyright Complaints](#), [Privacy Notice](#)



Indiana University Melvin and Bren Simon Cancer Center | 535 Barnhill Drive | Indianapolis, IN 46202  
Patient Care: (888) 600-4822 | Administrative Office: (317) 278-0070



Fundraising Disclosures: <http://go.iu.edu/89n>

For accessibility or website issues, contact the [webmaster](#).



INDIANA UNIVERSITY

## IU SIMON CANCER CENTER

Indiana University Melvin and Bren Simon Cancer Center



October 2017

# IUSCC news

## News briefs

### Dr. Loehrer delivers "State of the Cancer Center" address Nov. 2

[Patrick Loehrer](#), MD, director of the IU Simon Cancer Center, presents his annual "State of the Cancer Center" address at the [Seminar Series](#) Thursday, Nov. 2. The address is 3 p.m. to 4 p.m. in Walther Hall, Room 203 (auditorium). A reception immediately follows the presentation.

### Gianaris Pancreatic Cancer Symposium is Nov. 16

The Andrea Gianaris Pancreatic Cancer Symposium is 8 a.m. to 12:30 p.m. Thursday, Nov. 16 in Walther Hall, room 203. The half-day symposium is free and provides 3.5 CME credit hours.



Lillemoe

The symposium features the leading pancreatic surgeon in the country, Keith Lillemoe, MD, chief of surgery at Massachusetts General and the Harvard Medical School. He previously led the Department of Surgery at IU School of Medicine. Gabriela Chiorean, MD, is also returning to IU to present oncology advancements in the treatment of pancreatic cancer and the science driving new therapies. Dr. Chiorean is now a medical oncologist specializing in pancreatic cancer at Fred Hutchinson Cancer Research Center in Seattle. The symposium also features a panel of IU pancreatic specialists who will discuss case studies and interact with attendees.



Chiorean

IU School of Medicine faculty generated \$1.13 million in pancreatic cancer research funding in 2016 from the National Cancer Institute. They perform 3,000 pancreatic procedures annually, host the only high-risk clinic in the country, and nationally are ranked #1 in diagnostic procedures and #2 in the number of surgeries for pancreatic cancer annually.

Dr. Peter Gianaris, a neurosurgeon with Goodman Campbell Brain and Spine, established the symposium in memory of his wife, Andrea, in 2011. [Register and learn more.](#)

## Cancer center transitions

[Sherif Farag](#), MD, PhD, has stepped down as associate director for



Miller

clinical research at the IU Simon Cancer Center to focus on earning cell-based therapy accreditation for the center. [Kathy Miller](#), MD, succeeds Dr. Farag as associate director for clinical research. Also, [Todd Skaar](#), PhD, has been named a co-leader of the [Cancer Prevention and Control](#) research program with [Jiali Han](#), PhD, and [Susan Rawl](#), PhD.

### Komen Tissue Bank lives big

The Big Ten Network traveled to the Komen Tissue Bank at the IU Simon Cancer Center, which is celebrating its 10th anniversary this year. [Take a look at this LiveBIG story.](#)

### Dr. Sharpless is new NCI director

Norman E. "Ned" Sharpless, MD, is now the 15th director of the National Cancer Institute (NCI). He comes to NCI from the University of North Carolina School of Medicine, where he was director of the Lineberger Comprehensive Cancer Center. [more>](#)



During its Tickled Pink fundraising event on Oct. 6, the Vera Bradley Foundation for Breast Cancer announced it raised \$2.2 million this year, bringing its total raised to date to more than \$30 million for research at the IU Simon Cancer Center. Thank you, Vera Bradley Foundation!

### Neil Flick shuttles between IUPUI and Africa

The IU Simon Cancer Center's Neil Flick has been shuttling between IUPUI and African countries such as Kenya for almost 10 years for the cause of quality health care, despite having no letters like "M" or "D" behind his name. [more>](#)

### Cancer center members in the news

- [Mark Kelley](#), PhD, is the featured speaker at the IUPUI Center for Translating Research into Practice (TRIP) Community Showcase. Dr. Kelley, the 2017 Bantz-Petronio TRIP Faculty Award recipient, will present "Exploiting Basic Science

Discoveries for Targeted Disease Therapy: The Roller Coaster Ride of Drug Development." The event is 4:30-6:30 p.m. Nov. 1 in the IUPUI Campus Center, Room 405.

- [Jun Wan](#), PhD, [Yunlong Liu](#), PhD, and colleagues wrote "[Polo-like Kinase 1 \(Plk1\) Overexpression Enhances Ionizing Radiation-induced Cancer Formation in Mice](#)," which was published in the Journal of Biological Chemistry.
- [Anna Maria Storniolo](#), MD, is a recipient of the 2017 Susan Bulkeley Butler Leadership Excellence Award. The award will be presented at the 7th International Breast Cancer Prevention Symposium, which is Oct. 31-Nov. 1, in Montevideo, Uruguay. The award recognizes an individual who has made strides in research or healthcare that is of importance to breast cancer prevention and who has had a strong impact mentoring women in the area of breast cancer. The award is part of the [International Breast Cancer & Nutrition](#), a global collaboration dedicated to primary prevention of breast cancer worldwide. The IBCN project is under the [Women's Global Health Institute](#) at Purdue University.



- [Lisa Carter-Harris](#), PhD, recently was invited to deliver three presentations about cancer prevention and control in lung cancer, the patient perspective of lung cancer screening, and computer-tailored decision support intervention development in lung cancer screening at Shandong University in Ji'Nan in northeast China and Ji'Nan Central Hospital, also in northeast China.
- [Andrea Bonetto](#), PhD, is a recipient of a 2017 V Scholar grant for "Mechanisms and Treatment of Chemotherapy-induced Cachexia and Muscle Weakness." The V Scholar Grant is a two-year grant of \$100,000 per year. It supports young tenure-track faculty early in their cancer research careers by funding projects that are either laboratory-based fundamental research or translational research.

#### Helpful Links

[Member Directory](#) | [Shared Facilities](#) | [Funding Opportunities](#) | [Research Programs](#)

