



iuscc research news

April 2012

Cancer Research Day is May 9

The IU Simon Cancer Center's annual Cancer Research Day is Wednesday, May 9 at the IUPUI Campus Center, Room 450 (multi-purpose room).

Students, fellows, and faculty conducting cancer research at IUPUI, Indiana University-Bloomington, Purdue University, and the Harper Cancer Research Institute, a collaboration between the IU School of Medicine and the University of Notre Dame, will present their current research at Cancer Research Day.

Cash awards for best posters by graduate students, post-doctoral/medical fellows, research technicians, and clinical nurses in all three research categories will be selected by a review board.

Michael Clarke, MD, associate director of the Stanford Institute for Stem Cell Biology and Regenerative Medicine, presents "Disregulation of Self Renewal in Cancer and Down Syndrome" as the keynote address.

IU Simon Cancer Center Cancer Research Day is an annual event that aims to increase understanding and awareness of IU Simon Cancer Center research endeavors and encourage collaboration with other cancer research institutions in Indiana.

View the [e-poster](#) for the day's schedule of events.



April 2012

IU Simon Cancer Center joins Wellpoint in developing health care solutions

IU Simon Cancer Center will provide clinical expertise to help shape WellPoint's new health care solutions.

WellPoint's health care solutions utilize IBM Watson to help improve patient care and support physicians in their efforts to make the most informed, personalized treatment decisions possible. It is estimated that new clinical research and medical information doubles every five years, and nowhere is this knowledge advancing more quickly than in the complex area of cancer care.

Watson has the ability to respond to inquiries posed in natural language and to learn from the responses it generates. The WellPoint health care solutions will draw from vast libraries of information, including medical evidence-based scientific and health care data, and clinical insights from institutions like Indiana University. The goal is to assist physicians in evaluating evidence-based treatment options that can be delivered to the physician in a matter of seconds for assessment. WellPoint and the IU Simon Cancer Center envision that this valuable enhancement to the decision-making process could empower physician-patient discussions about the best and most effective courses of treatment and improve the overall quality of patient care.

The IU Simon Cancer Center was selected as WellPoint's partner and clinical consultant based on its reputation as one of the nation's premier cancer institutions and its proven results in the diagnosis and treatment of complex cancers. IU Simon Cancer Center has experience and demonstrated success in working with technology innovators and shares WellPoint's commitment to improving the quality, efficiency and effectiveness of health care through innovation and technology.

IU Simon Cancer Center experts will help develop recommendations on appropriate clinical content for the WellPoint health care solutions. They will also assist in the evaluation and testing of the specific tools that WellPoint plans to develop for the oncology field. The cancer experts will provide guidance on how to improve the content and utility of the treatment options provided to the physicians using the new technology and will also become early adopters in piloting the system.

Leading the IU Simon Cancer Center's efforts are **George Sledge Jr., MD**, and **Patrick Loehrer, Sr., MD**. They will work closely with WellPoint's clinical experts, and with IU's trusted informatics partner, the Regenstrief Institute, to provide advice on how the solutions may be best utilized in clinical practice to support increased understanding of the evolving body of knowledge in cancer, including emerging therapies not widely known by community physicians. As the solutions are developed, Drs. Sledge and Loehrer will also provide guidance to WellPoint.

"As we design the WellPoint systems that leverage IBM Watson's capabilities, it is essential that we incorporate the highly-specialized knowledge and real-life practice experiences of the nation's premier clinical experts," Harlan Levine, MD, executive vice president of WellPoint's Comprehensive Health Solutions, said. "The contributions from Dr. Sledge and Dr. Loehrer, coupled with the expertise throughout the IU Simon Cancer Center, will be invaluable to implementing this WellPoint offering and could ultimately benefit millions of Americans across the country."

"Researchers from the IU Simon Cancer Center are leading clinical investigators who have set standards

of care for treatment of numerous malignancies, including germ cell tumors, breast and thoracic tumors,” Dr. Loehrer, director of the IU Simon Cancer Center and HH Gregg Professor of Oncology at the IU School of Medicine, said. “We will also be working closely with experts at the Regenstrief Institute -- an internationally respected informatics and healthcare organization -- whose scientists were among the first in the nation to establish electronic medical records. Together, our organizations have a longstanding history of impacting patient care with clinical research.”

WellPoint anticipates deploying its first offering later this year, working with select physician groups in clinical pilots.



April 2012

Core spotlight

Chemical Genomics Core

Recent advances in genomics, proteomics, systems biology, and chemical biology have resulted in dramatic expansion of our understanding of the molecular underpinnings of living systems. This information enables researchers to develop novel targeted therapies for a variety of intractable diseases. However, there is a bottleneck currently limiting this type of translational research: the availability of diverse compound collections, chemical synthesis, and other specialized tools for high throughput biology. Academic investigators, who focus on fundamental biological mechanisms, do not have the tools to translate these discoveries into therapeutic agents.

The Chemical Genomics Core was established to facilitate the discovery of small molecule probes for biological pathway analysis and for therapeutic development. Small molecule probes can be very important in the development of therapeutic agents since they can be used to test the effects of altering biological processes in cells, which can lead to the identification of validated targets for drug development. In addition, these novel chemical tools can serve as the starting points for the elaboration of first-in-class targeted therapies.

The mission of the core is to provide investigators with cost-effective access to the large-scale screening capacity necessary to identify small molecules that can be optimized as chemical probes to study the functions of genes, cells, and biochemical pathways. The facility also has the capacity for lead optimization required to produce useful chemical probes/therapeutic agents from the hits identified from the initial screening.

The core is equipped with multiple automated liquid handling systems and detection devices, structurally-diverse, drug-like small molecule libraries, infrastructure for hit identification and characterization, medicinal chemistry capabilities for targeted chemical synthesis, and a staff experienced in assay development, high throughput screening, and laboratory robotics.

Chemical Genomics

Questions? Contact Zhong-Yin Zhang, PhD, core director. He can be reached at 274-8025 or zyzhang@iupui.edu.

You can find all of the IU Simon Cancer Center cores [here](#).

The core's services include:

- Consultation for assay development
- Assistance in assay implementation and validation
- Assistance in carrying out high-throughput screening of chemical libraries
- Access to chemical libraries (about 230,000 drug-like small molecules) pre-plated, readily available for screen in a 96- or 384-well format
- Training in the use of facility-maintained instrumentation
- Assistance with data analysis and compound selection
- Hit confirmation and follow-up
- Biophysical analysis

Types of assays implemented include:

- In vitro enzymatic activity assays
- In vitro protein binding assays
- Cell proliferation assays
- Cell-based reporter gene assays
- Whole cell-based phenotypic assays


Assay detection capacity includes UV/Vis absorbance, fluorescence, fluorescence polarization (FP), time-resolved fluorescence (TRF), luminescence, AlphaScreen and LANCE (HTRF) technology.



April 2012

News briefs


Kroenke honored for outstanding contributions in clinical research training

Kurt Kroenke, MD, received the 2012 Distinguished Educator Award at Translational Science 2012 in Washington, D.C. [more](#) 

IU School of Medicine, Indiana University Health announce \$150 million research collaboration

Indiana University Health and the Indiana University School of Medicine have announced that they will invest \$150 million over five years in a new research collaboration, the Strategic Research Initiative, that will enhance the institutions' joint capabilities in fundamental scientific investigation, translational research and clinical trials that will result in innovative treatments for disease. Cancer is one of three targeted research areas. [more](#) 

Report to the nation: Cancer deaths continue to decline

Death rates from all cancers combined for men, women, and children continued to decline in the United States between 2004 and 2008, according to the *Annual Report to the Nation on the Status of Cancer, 1975-2008*. [more](#) 

Dropcho: Extraordinary Healer finalist


Sheila Dropcho, RN, BSN, renal research nurse coordinator at IU Simon Cancer Center, is one of three finalists for a 2012 Extraordinary Healer Award for Oncology Nursing. She was nominated by a patient who wrote an essay describing the compassion, expertise, and helpfulness Dropcho has provided him. Dropcho and the patient will travel to New Orleans for an awards reception May 3, held in conjunction with the Oncology Nursing Society's 37th Annual Congress. The three finalists and the winner, who will be announced at the reception, were selected by the staff of CURE Media Group. Fox 59 will broadcast a "Female Focus" segment on Dropcho during its 4 p.m. newscast Monday, April 30. Congratulations and good luck, Sheila!

Schug elected to NCI public affairs group

Michael Schug, communications manager at IU Simon Cancer Center, has been elected to a two-year term on the National Cancer Institute Public Affairs and Marketing Network (PAN) steering committee.

IUSCC basketball team plays April 28 at Butler

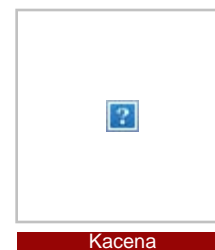
The IU Simon Cancer Center's basketball team, led by **Bryan Schneider**, MD, takes on the Kroger team at 9:30 a.m. Saturday, April 28 in the Health & Recreation Center (HRC) at Butler University. The IU Simon Cancer Center is a sponsor of this year's Coaches' Huddle, part of Coaches vs. Cancer, a collaborative program between the American Cancer Society and the National Association of

Basketball Coaches that empowers coaches of all sports, their teams and communities to join the fight against cancer. Since its inception in 1993, high school and college coaches across the country have raised more than \$60 million to help the American Cancer Society fund groundbreaking cancer research, provide up-to-date cancer information, advocate for public health policies that benefit the community and provide free local programs that improve quality of life for cancer patients and their families and caregivers. [more](#) 



Cancer center members in the news

- **George Sledge**, MD, has been named a 2012 Prestigious External Award Recognition (PEAR) recipient in honor of having been named an Indiana University Distinguished Professor. Distinguished professorships are the most prestigious academic appointment IU offers. The rank of distinguished professor honors outstanding scholarship, artistic or literary distinction, or other achievements that have won significant recognition by peers.
- **Kurt Kroenke**, MD, a Regenstrief Institute investigator, has been named one of five members of a new scientific advisory committee that will provide expert advice to the Canadian Minister of Veterans Affairs. The committee will advise Veterans Affairs Minister Steven Blaney on specific veterans' health issues. The committee's first study will focus on depleted uranium, which has been used in some munitions as well as armored protection, such as tanks. There has been speculation that depleted uranium may be related to unexplained symptoms as well as negative health effects, although U.S. studies have not confirmed this.
- **Harikrishna Nakshatri**, PhD, has been named a member of the NIH Cancer Molecular Pathobiology Study Section, Center for Scientific Review. Study sections review grant applications submitted to the NIH, make recommendations on the applications to the appropriate NIH national advisory council or board, and survey the status of research in their fields of science. He was nominated because of his demonstrated competence and achievement in his scientific discipline as evidenced by the quality of his research accomplishments, publications in scientific journals, and other significant scientific activities, achievements and honors.
- **Melissa Kacena**, PhD, received an Outstanding IUPUI Woman Leader Award from the IUPUI Office for Women and Campus and Community Life. Dr. Kacena was honored in the "newcomer" full-time faculty category. Dr. Kacena's research focuses on improving the treatment of metabolic bone disease and fracture healing.
- **Rafat Siddiqui**, PhD, has been named editor of *Advances in Breast Cancer Research*.
- **Simon Conway**, PhD; **Nadia Carlesso**, MD, PhD; **Angelo Cardoso**, MD, PhD; **Mark Kaplan**, PhD; and **Mervin Yoder**, MD, wrote "Autonomous Murine T Cell Progenitor Production in the Extra-embryonic Yolk Sac Prior to HSC Emergence," which was published in the March 19 issue of *Blood*.



Kacena