



June 2011

CICC becomes IU Simon Cancer Center affiliate

Bolstering its ability to provide cutting-edge cancer care to patients close to home, Indiana University Health has acquired the assets of Central Indiana Cancer Centers (CICC).

With five locations providing cancer treatments around the Indianapolis area, CICC is a fully integrated team of 16 physicians and one nurse practitioner specializing in hematology, medical oncology, and radiation oncology.

The agreement, effective June 1, combines the expert community-based care of CICC with the research and highly skilled academic physicians of IU Health, Indiana's most comprehensive healthcare system. CICC also becomes an affiliate of the IU Simon Cancer Center.

Since its founding 35 years ago, CICC has grown into a comprehensive cancer care provider. CICC's team participates in more than 40 clinical trials, helping to provide patients with access to the latest innovative therapies. CICC also promotes early cancer detection and offers cancer screening services to the community at no cost.

As part of the agreement, CICC's 150 non-physician employees join IU Health.

[Read the *Indianapolis Business Journal* story.](#)



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Bioinformatics Core at the Center for Computational Biology and Bioinformatics

The [Center for Computational Biology and Bioinformatics](#), part of the IU School of Medicine, supports a Bioinformatics Core which is available to IU Simon Cancer Center members.

The center and the core bring world-class, cutting-edge research in computational biology and bioinformatics with a special emphasis on the problems of identifying the functions and structures of various protein entities in a manner that stimulates both academic and commercial collaborations.

"We're all focusing on the use of computer algorithms to help us solve problems in biology, especially molecular biology," **Keith Dunker**, PhD, director of the Center for Computational Biology and Bioinformatics, said. "That's the whole idea of the center."

The multi-disciplinary Bioinformatics Core provides a variety of consulting and collaborative research. It offers:

- Genetic association study data analysis
- Microarray gene expression
- LC-MS/MS and GC-MS/MS proteomics data analysis
- In silico drug screening for protein targets of known structure
- Next generation sequencing data analysis
- Pharmacokinetics/pharmacodynamics modeling and trial simulation
- Protein disorder and structure prediction
- GVK Bio, an important biomarker database with major cancer applications

Center for Computational Biology and Bioinformatics

The Center for Computational Biology and Bioinformatics supports the Bioinformatics Core. Both are located in the Health Information and Translational Sciences (HITS) building, 410 West 10th St., Suite 5000.

Dr. Dunker is director of the Center for Computational Biology and Bioinformatics. He can be reached at 278-9220.

Dr. Li is director of the Bioinformatics Core. He can be reached at 274-4332.

The core also provides genome annotations and browsing, cross-platform analysis, database integration and management, and hourly consulting services.

According to **Lang Li**, PhD, director of the core, more than 30 projects involving collaborations with IU Simon Cancer Center members have already been carried out by the core's staff.

"Cancer is a complex collection of diseases and bioinformatics is becoming ever more essential to deal with the rapidly expanding datasets dealing with these complexities. Our Bioinformatics Core is ready to help," Dr. Li said.



June 2011

News briefs

Center for Pancreatic Cancer Research receives funding under IUPUI's Signature Centers Initiative Grant Program

The Center for Pancreatic Cancer Research is one of three new centers selected out of a pool of 19 applications to receive three-year funding under the IUPUI Signature Centers Initiative Grant Program. Led by **Mark Kelley**, PhD, and **Tom Howard**, MD, the center's mission is to promote a better understanding of the critical pathways and molecular mechanisms involved in pancreatic tumor development, to stimulate the consistent and productive exchange of ideas between clinicians and basic scientists, to facilitate external funding for its members, to disseminate information across the Indiana medical and research community, and improve pancreatic cancer patient outcomes. The center -- composed of basic, translational and clinical researchers -- represents the continuum of disease research from biological/molecular investigation to clinical trials.

Free oral, head & neck cancer screenings at Indians game June 26

Fans watching the Indianapolis Indians take on the Pawtucket Red Sox on Sunday, June 26, can receive a free oral, head and neck cancer screening before and during the game at Victory Field. Volunteers from the IU Simon Cancer Center and the IU School of Medicine Department of Otolaryngology – Head and Neck Surgery, led by **Michael Moore**, MD, will provide the screenings in a private tent area set up in the PNC Plaza inside the main fan entrance at Victory Field. Cancer survivor Brent Oakes -- a husband and father from Rossville, Ind. -- will throw out the ceremonial first pitch. Screenings will begin when the gates open at 12:30 p.m.; the game begins at 2:05 p.m.



Moore



IU's first lady, Laurie Burns McRobbie (right), listens to and talks with a couple of students participating in the IU Simon Cancer Center's Summer Research Program. The nine-week program recently kicked off and gives students hands-on experiences by working with world-class physicians and researchers from the cancer center.

Cancer center members in the news

- **George Sledge**, MD, ended his one-year ASCO presidency earlier this month. A writer with *Forbes*, Matthew Herper, captured Dr. Sledge's outgoing comments in this [article](#). Also, Dr. Sledge discussed new treatments for breast cancer and melanoma on the *PBS News Hour*, and he wrote a powerful [essay](#) for CNN on why he became an oncologist. Dr. Sledge is now immediate past president of ASCO through June 2012.
- **Kenneth Cornetta**, MD, **Keith March**, MD, PhD, and **David Wilkes**, MD, are among six IU School of Medicine faculty listed in the 2011 *Indianapolis Business Journal* "Who's Who in the Life Sciences," which highlights the "influential players," whether in the public eye or behind the scenes, who fuel the life sciences in Indiana.
- **Giuseppe Del Priore**, MD, MPH, appeared on *Good Morning America* on June 15 to discuss womb transplants.
- In an interview with the *PBS News Hour*, **David Flockhart**, MD, PhD, talked about a class of antibiotics called quinolones that is raising concerns after some patients report becoming very ill after taking them.
- **Thomas Gardner**, MD, **Noah Hahn**, MD, **Peter Johnstone**, MD, MA, **Michael Koch**, MD, and **Gary Hutchins**, PhD, are collaborating with Purdue University on a clinical trial for a new technology to diagnose and treat prostate cancer. The trial is testing the combination of a radio imaging agent and a prostate cancer-targeting molecule developed by Philip Low, Purdue's Ralph C. Corley Distinguished Professor of Chemistry. Low and his research team designed a targeting molecule that seeks out



Del Priore

and attaches to prostate-specific membrane antigen, or PSMA, a protein that is found on the outer membrane of the cells of more than 90 percent of all prostate cancers. This trial marks Purdue's first time it has directed the entire pathway of a therapeutic product from early research to patient treatment.

- **Mark Kelley**, PhD, presented "Neuropathies: Biological Pathways, Current Intervention Studies" during a symposium June 10 at the Fred Hutchinson/University of Washington Cancer Consortium.
- **George Sledge**, MD, and a colleague discuss the current understanding of the metastatic cascade as it relates to therapy, emerging therapeutic targets in the metastatic process, and how novel antimetastatic therapies might be developed for clinical use in the June 2011 issue of [Nature Reviews Clinical Oncology](#).
- **Jian-Ting Zhang**, PhD, and colleagues wrote "Role of eIF3a in Regulating Cisplatin Sensitivity and in Translational Control of Nucleotide Excision Repair of Nasopharyngeal Carcinoma" in the May 30 issue of [Oncogene](#).

Indiana CTSI awards nearly \$3 million in pilot funding, scholarships

The Indiana Clinical and Translational Sciences Institute has awarded nearly \$3 million to a new generation of medical students and

researchers at Indiana University, Purdue University,



and the University of Notre Dame to encourage home-grown innovation in Indiana.

Approximately \$2.3 million will support career development grants to young physicians and scientists working on promising research projects. An additional \$500,000 will support new research projects aimed at advancing the fight against diseases such as breast cancer, prostate cancer, multiple sclerosis, and osteoporosis.

The pilot funds are provided by the Indiana CTSI Collaboration in Translational Research (CTR) Awards. This program requires participation from scientists at two or more member institutions or campuses -- IU, IUPUI, IU-Bloomington, Purdue and Notre Dame - - to encourage statewide collaboration.

The scholarships are provided by the Indiana CTSI Young Investigator (K Award) and Training Awards (T Award) programs. Graduate student recipients also receive health insurance coverage.

Together, these awards span six teams of scientists from the schools of medicine and dentistry at IU and veterinary medicine and biomedical engineering at Purdue and 39 scientists and students studying biochemistry, medical informatics, microbiology, neuroscience, nursing, ophthalmology, pediatrics, pharmacology and toxicology, psychology, public health, radiology, and surgery at IU, Purdue, and Notre Dame.

The recipients are:

- **Collaboration in Translational Research Awardees:**
(*cancer center members appear in bold*)

Melissa Kacena, PhD, and Angela Bruzzaniti, PhD,
“Megakaryocytes and Pyk2 as Anabolic Stimulators of
Bone Formation.”

Jian-Ting Zhang, PhD, and **Ji-Xin Cheng**, PhD,
“Dual Functional Nanoparticles Targeting Cancer
Stem Cells for Improved Treatment of Breast
Cancers.”

Sophie Lelievre, DVM, PhD, and **Brittney-Shea
Herbert**, PhD, “Malleable Tissue Models for the
Assessment of Breast Cancer Risk, the Identification
of Biomarkers and the Design of Prevention
Strategies.”

- **Young Investigator Awardees:**

Philip Johnson, PhD, **Melissa Kacena**, PhD, **Catherine
Mosher**, PhD, **Julie Otte**, PhD, and **Clark Wells**, PhD.

New members

Amber Mosley, PhD

Department of Biochemistry and Molecular Biology
Associate member, Experimental and Developmental
Therapeutics

Pierrick Fournier, PhD

Department of Medicine, Division of Endocrinology
Associate member, Tumor Microenvironment and Metastases

New grants

Hal Broxmeyer, PhD
“Regulating Hematopoietic
Stem Cells and Hematopoiesis
for Clinical Efficacy”
NIH-NIDDK

Randy Brutkiewicz, PhD
“Regulation of CD1d Antigen
Presentation by Merlin”
U.S. Department of Defense

David Clapp, MD
“Genetic Therapy for Fanconi
Anemia”
NIH-NCI

Alexander Dent, PhD
“Control of Inflammation by
Regulatory T Cells and BCL6”
NIH-NIAID

David Flockhart, MD, PhD
“A New Role for Aromatase

Mark Kelley, PhD
“Testing of Novel Ref-1
Redox Inhibitors”
ApeX Therapeutics

Hari Nakshatri, BVSc, PhD
“Anthrax Toxin Receptor as
a Marker and Target of
Breast Cancer Stem Cells”
NIH-NCI

Kenneth Nephew, PhD
“Epigenetic Modulation of
Platinum Anti-Tumor
Activity in Ovarian Cancer”
Ovarian Cancer Research
Fund

Jamie Renbarger, MD
“Pharmacogenetic
Determinants of Vincristine
Toxicity and
Response”NIH-
NICHD Kenneth White,

(CYP19) in Drug Disposition in
Breast Cancer”
U.S. Army

PhD“Conditional Isolation
of Fgf23 Activity”
NIH-NIAMS

Theresa Guise, MD
“Near-infrared Photodynamic
Therapy with Selective
Targeting: Breast Cancer and
Bone Metastases”
Susan G. Komen for the Cure
Cancer Foundation

Mark Kelley, PhD
“IU/PU Joint Working Group
Project-Pancreatic Working
Group”
Purdue University