# iuscc research news

March 2008

## Cancer Research Day is May 7

The 2008 IU Simon Cancer Center Cancer Research Day, an annual event that includes a scientific poster session and keynote address, is May 7.

Cancer Research Day, led by James Klaunig, PhD, aims to increase understanding and awareness of IU Simon Cancer Center research endeavors and encourage collaboration with other cancer research institutions in Indiana.

**Cancer Research Day**
Wednesday, May 7

**scientific poster session**
10 a.m.-3 p.m.
VanNuys Medical Science Building atrium

**keynote address with Dr. Michael J. Birrer**
3-4 p.m.
Cancer Research Institute, Room 101

Students, fellows, and faculty conducting cancer research at IUPUI, IU-Bloomington, Purdue University, and the Walther Cancer Research Center at the University of Notre Dame are invited to present their current cancer research efforts.

The scientific session is 10 a.m. to 3 p.m. in the atrium of the VanNuys Medical Sciences Building.

Abstracts should be submitted for basic science, translational/clinical, or population science categories. Please submit all abstracts electronically by April 30 by visiting this link.

Individual laboratories may submit multiple abstracts; if space becomes limited, each laboratory will be asked to identify representative posters.

Cash awards for best posters by graduate students and by post-doctoral/medical fellows in all three research categories will be selected by a review board and presented by Stephen Williams, MD, IU Simon Cancer Center director.

Dr. Michael J. Birrer of the National Cancer Institute will deliver this year's keynote address from 3 p.m. to 4 p.m. in Room 101 of the Cancer Research Institute.

Birrer is with the NCI's Cell and Cancer Biology Branch and head of the Molecular Mechanisms Section, and a senior investigator. Birrer received his MD and PhD from the Albert Einstein College of Medicine, where he participated in the

NIH-funded Medical Scientist Training Program. He completed his clinical training in internal medicine at Massachusetts General Hospital and in oncology at the NCI. Birrer became an investigator in 1988 and a senior investigator in 1990 and chief of the Molecular Mechanisms Section in 1991.

For more information about Cancer Research Day, contact Dr. Klaunig.

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## Core spotlight

**Biostatistics and Data Management Core**

The Biostatistics and Data Management Core (BDMC), under the direction of Susan M. Perkins, PhD, offers an array of services to IUSCC members.

The services are grouped into three broad categories: biostatistical and statistical bioinformatics, data management, and education.

The core – which is composed of biostatisticians and data managers – is available to assist in the statistical and data management aspects of any cancer-related study, whether it is in the areas of laboratory studies, animal studies, clinical trials, or behavioral research.

It has expertise in both traditional statistical and data management methodologies as well as newer methodologies in the areas of gene expression, systems biology, genetic and population analysis, proteomics, and medical data informatics integration.

Overall, the core has statistical and data management responsibilities as well as related administrative functions, including education, training, and facilitation of the collaborative research effort of cancer center investigators.

IUSCC members are strongly encouraged to seek support from the core in the early stages of grant and protocol development. BDMC members collaborate and consult with and participate in virtually every level of research, including the:

- design of experiments
- planning of basic science and clinical protocols
- monitoring and assessment of the progress of pre-clinical and clinical studies
- analysis and interpretation of the data
- presentation and dissemination of results

The BDMC services available to IU Simon Cancer Center members include:

- providing broad statistical support
- developing databases and case report forms (including Oncore)
- serving as an educational resource

- facilitating communications between the IU Simon Cancer Center, other Indiana University groups, other cancer centers, the NCI, and the scientific community at large

For more information, contact Dr. Perkins at sperkin1@iupui.edu.

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## News briefs

### IUSCC researchers, others report first 3-D view of anti-cancer agent

Two researchers with the IUSCC -- Millie Georgiadis, PhD, and Eric Long, PhD -- have created the first three-dimensional image of how a well-established chemotherapy agent targets and binds to DNA. The study, published online in the *Proceedings of the National Academy of Sciences,* may help scientists develop better chemotherapy drugs to treat a wide range of cancers. Using X-ray crystallography, the scientists produced the first 3-D molecular level images of bleomycin bound to DNA. X-ray crystallography is a widely used analytical technique in which X-rays are directed through crystals and results are deduced from the pattern of diffraction of the X-rays. A combination chemotherapy regimen, including bleomycin, was successfully pioneered at the IUSCC by Lawrence Einhorn, MD. This multi-agent therapy, which mutes the toxicity of bleomycin, is now the standard of care for testicular cancer. Because it causes lung damage, bleomycin is not typically used to treat other cancers. “Our 3-D picture of the structure of bleomycin gives us a much better understanding of exactly how the drug interacts with the DNA so we can begin thinking about engineering a better drug, with less toxicity,” Georgiadis said. “Since it’s a DNA targeting agent, there’s no limit to what type of cancers we could target with bleomycin if we can decrease the toxicity.” Georgiadis and Long are senior authors of the study. Co-authors of the study also include first author Kristie Goodwin, PhD, a postdoctoral fellow at the IU School of Medicine, and Mark Lewis, a PhD graduate student in the Department of Chemistry & Chemical Biology at the time this study was conducted.

### Local Komen chapter honors tissue bank

The Susan G. Komen for the Cure Indianapolis affiliate honored the Susan G. Komen for the Cure Tissue Bank at the IU Simon Cancer Center with its Community Achievement Award during the Pink Tie Ball on Feb. 23. The tissue bank was cited for its groundbreaking initiative in collecting tissue samples to advance breast cancer research. Founded by Anna Maria Storniolo, MD, Susan Clare, MD,

PhD, and Connie Rufenbarger, consumer representative, the tissue bank grew from a cross-collaborative effort among breast cancer scientists and clinicians. Since 2005, the tissue bank has collected more than 2,500 tissue and blood samples, providing medical experts throughout the world with access to valuable and unprecedented research data.

And thousands of blood samples are expected to be collected during the Race for the Cure on April 19. The tissue bank needs volunteers on race day. If interested, please click here.

**Indy SurviveOars unveils dragon boat April 13**

Breast cancer support group Indy SurviveOars, sponsored by the IU Simon Cancer Center and Clarian Health, will host the public launch of its dragon boat at 2 p.m. Sunday, April 13 at Geist Marina. Indy SurviveOars welcomes breast cancer patients, survivors, and supporters to its group, which provides physical and psychological benefits through paddling a 42-foot dragon boat in competition with teams throughout the United States. For more information, visit indysurviveoars.org.

**Research III update**

The drywall installation is complete on the upper floors, while all finishes -- painting, flooring, the installation of ceilings and light fixtures -- have started in Research III. When completed in spring/summer 2009, half of the labs will be used by IU Simon Cancer Center researchers, many of whom will be engaged in translational research. Significant clinical efforts already underway in breast, prostate and ovarian cancer, as well as genetic and blood-related disorders, will benefit from the laboratory science support of this new facility. Other specialized cancer research initiatives moving into the new building will include experimental and developmental therapeutics, the tumor microenvironment program and hematopoiesis and immunology.

**PowerPoint, poster templates now available**

IUSCC members can now access templates -- with the approved IU Simon Cancer Center signature -- for PowerPoint presentations and posters on the cancer center's Intranet here. Both are located under the "Templates" heading.

**Bamboo coming to new IUSCC patient facility**

The owner of a Florida company that grows tropical trees checks on stems of Henon bamboo that will be placed inside the new IU Simon Cancer Center patient facility. Currently ranging in

height from 23’ to 28’, the bamboo stems were moved into a shade structure about nine months ago, allowing them to acclimate to the lower light they will receive once housed inside the new IUSCC building. Indianapolis-based Engledow Group will install the bamboo in June. The bamboo will add to the building’s serene natural environment that patients and visitors will find when it opens in late August. Currently, construction crews are focusing on the interior finishes, including ceilings, walls, flooring, and custom casework. As warmer weather approaches, exterior gardens and landscaping will be installed.