



## iuscc research news

April 2009

### Schneider, colleagues earn \$5.8 million Komen grant

Bryan Schneider, MD, received a \$5.8 million Promise Grant from Susan G. Komen for the Cure in early April for his

research that attempts to predict who will benefit from the powerful breast cancer-fighting drug bevacizumab.

With the Promise Grant, Schneider and colleagues will try to establish biomarkers that physicians can use to better predict which breast cancer patients will benefit from bevacizumab and which cancer patients will suffer significant side effects.



Schneider

The researchers will study genetic biomarkers in the ongoing IU-based [E5103 phase III trial](#) that is evaluating whether adding bevacizumab to standard chemotherapy will improve disease-free and overall survival for women with potentially curable disease.

The Promise Grant will allow Schneider to use a cutting-edge genetic platform (a Genome Wide Association Study) to uncover the most clinically accurate biomarkers possible. Schneider and team also will include quality of life studies to better understand the physical and psychological effects women face.

"The time is ripe to apply cutting-edge therapeutic individualization to an important and emerging novel therapy, decreasing morbidity, decreasing cost, and improving quality of life for women with early-stage breast cancer," Schneider said.

Schneider's grant is part of \$60 million in research that Komen is set to fund this year to scientists worldwide who are seeking cures for breast cancer.

"Promise Grants are designed to bring the world's best minds together, to provide those experts with the resources to focus and solve one serious problem in breast cancer, and to get results to patients quickly," Hala Modellmog, president and CEO of Susan G. Komen for the Cure, said.



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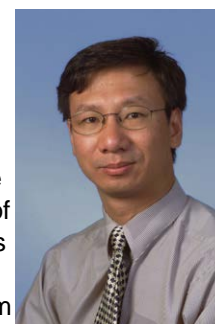
April 2009

### **Multifocal lung cancers appear to originate from single cancer clone, according to IU Simon Cancer Center researcher**

Multiple, anatomically distinct lung cancer tumors may frequently arise from a single cancer cell, according to a

retrospective analysis of patient tumor samples published in the April 7 online issue of the *Journal of the National Cancer Institute*.

Some lung cancer patients have multiple anatomically distinct tumors at the time of diagnosis. Although such multiple tumors usually share a common appearance, it has been unclear whether they arise from a single tumor or are independent primary cancers.



Cheng

In the current study, Liang Cheng, MD, and colleagues examined 70 lung cancer tumors from 23 female and seven male patients to determine whether multiple tumors from an individual patient shared a common genetic pattern. The investigators analyzed the tumors for chromosome loss at six loci previously associated with lung cancer and for mutations in the TP53 gene. They also analyzed the X-chromosome inactivation pattern in tumors from female patients.

Based on these three analyses, the investigators concluded that the multiple tumors in 23 of the 30 patients (77 percent) arose from a single cancer clone.

"Our findings support the current classification of multifocal lung cancers as advanced-stage cancers ... rather than separate primary cancers and the use of therapeutic strategies tailored for patients with advanced-staged cancers," the authors wrote.

"The results of these studies pose both important biological and clinical management questions," according to Adi Gazdar, MBBS, and John Minna, MD, of the University of Texas Southwestern Medical Center in Dallas, who wrote an accompanying editorial. The editorialists review what is known about the biology of multifocal cancers and note that as many as 8 percent of lung cancer patients have multiple anatomically distinct tumors at the time of diagnosis.

An updated lung cancer classification system is expected sometime in 2009 and will distinguish between patients with regional metastatic disease, including those with multiple tumors at diagnosis, and patients with distant metastases. "Clearly, multifocal lung cancers (without distant metastases) constitute a unique set of tumors having heterogeneous origins and better than expected prognosis and should be classified and treated appropriately," the editorialists wrote.



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### News Briefs

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#### Remember, honor Dr. Williams: Join Team Williams

In February, we lost a valued friend and leader with the passing of Dr. Stephen Williams, the founding director of the IU Simon Cancer Center. He was serving as honorary race co-chair of Outrun the Sun Race Against Melanoma when he died of that very disease. This year's Outrun the Sun race -- which includes a five-mile competitive run, a 5K non-competitive run/walk, and a one-mile fun walk -- is Saturday, June 6 at Fort Benjamin Harrison. [Follow this link to join Team Williams](#). Click on "Join Our Team" at the top of the page and follow the registration instructions. **The registration deadline is May 29.** Team Williams co-captains are Kristin Crowder, RN, BSN, and Michael Schug.

#### Cancer Research Day is May 6

Mark your calendars. The Indiana University Melvin and Bren Simon Cancer Center [Cancer Research Day](#) is May 6. The day's schedule is:

- **Scientific Poster Session**

10 a.m.-noon  
2nd floor atrium

- **Keynote Address**

3-4 p.m.  
auditorium (Room C203)

Kornelia Polyak, MD, PhD, of Dana Farber Cancer Institute presents "Breast Tumor Evolution"

- **Awards Presentation**

4-4:30 p.m.  
auditorium (Room C203)

All events take place in Joseph E. Walther Hall (R111) during Cancer Research Day.

#### Walther, IUSCC create new scholar program; applications due May 1

The Walther Cancer Foundation Inc., in collaboration with the Indiana University Melvin and Bren Simon Cancer Center, has established the Walther Clinical Research Scholar program. This program will provide support for junior translational clinical investigators to generate


preliminary data fundamental for an R21 Quick Trial Grant or Translational/Clinical R01 application. Applications are due May 1.

more 

### Wanted: Mentors for Summer Research Program

You are invited to serve as a faculty mentor for the 2009 [IU Simon Cancer Center Summer Research Program](#), June 1 - July 31. By placing students with faculty mentors, students gain insight into a wide-range of basic science, translational, and clinical research activities. Mentors facilitate and guide the students toward completing a research project, encourage students to explore the field of biomedical science, and provide students access to professional networks. Mentors receive \$500 toward the purchase of lab supplies for the student(s) and project(s). Questions? Contact [Rivienne Shedd-Steele](#) at 278-0073.

### Cancer center members in the news

- **Douglas Rex**, MD, Chancellor's Professor of Medicine in the Division of Gastroenterology and Hepatology, has been elevated to the rank of Distinguished Professor. Also, *Cataract Outsourcing* named Dr. Rex among "22 Gastroenterologists to Know" in its April 8 blog entry.
- **Darron Brown**, MD, has been named one of three recipients of the 2009 PhRMA Clinical Trial Exceptional Service Award. The award honors Dr. Brown's work as a researcher in the development of Gardasil, the Merck & Co. vaccine against infection by the human papillomavirus, which can cause cervical cancer. Dr. Brown played a key role in the pre-clinical research into Gardasil, including demonstrating the effectiveness of a prototype vaccine, as well the clinical testing of Gardasil. Worldwide, about 370,000 new cases of cervical cancer are diagnosed annually, with a 50 percent mortality rate. The award was presented to Dr. Brown April 4 by the Pharmaceutical Research and Manufacturers of America. Also, Dr. Brown was the [lead author](#) and a [co-author of a second article](#) about Gardasil, both published in *The Journal of Infectious Diseases*.
 

Brown
- **David Ingram**, MD, has been elected to the American Society for Clinical Investigation, which includes more than 2,800 physician scientists from all medical specialties. Each year, ASCI members nominate those who have made significant accomplishments at a relatively young age -- 45 years or younger.
- **Mervin Yoder**, MD, has been elected to the Association of American Physicians. Election is

extended to individuals with outstanding credentials in biomedical science, and is limited to 60 people per year. The goal of the association is the promotion of professional and social interaction among biomedical scientists, the dissemination of important information related to biomedical science and teaching, the recognition of outstanding scientists through membership, and the establishment of role models to kindle new generations of high achievers in medicine and medical science.



Yoder

- **Mark Kelley**, PhD, will chair a session entitled "DNA Repair Proteins as Molecular Targets for Cancer Therapeutics" as part of the Basic Science-Clinical Interface Sessions: Pathways to Progress at the 100<sup>th</sup> annual meeting of the American Association for Cancer Research. The conference is April 18-22 in Denver. With the theme "Science, Synergy and Success," the meeting highlights the best cancer science and medicine from institutions around the world. Kelley will be joined by Vincent Giranda of Abbott Laboratories and Elizabeth Plummer of the University of Newcastle, Newcastle Upon Tyne, United Kingdom. The team will give an overview and explanation of the DNA repair protein concept for cancer therapeutics as well as discuss progress with clinical trials and emerging therapies.
- **Anna McDaniel**, DNS, RN, FAAN, has been awarded funding for a five-year study, entitled *Technology Enhanced Quitline Services to Prevent Smoking Relapse*. The study's purpose is to test the efficacy of interactive voice response (IVR) technology for enhancing telephone-based smoking cessation services to prevent smoking relapse and achieve abstinence.
- A new cancer medicine studied in clinical trials at the IU Simon Cancer Center under **Theodore Logan**, MD, has been approved by the U.S. Food and Drug Administration. Afinitor (everolimus) tablets are for patients with advanced renal cell carcinoma. Afinitor is the first approved once-daily oral therapy that continuously targets mTOR, a protein inside the cancer cell that controls tumor cell division and blood vessel growth. The IU Simon Cancer Center was one of the key clinical trial sites involved in the RECORD-1 (Renal Cell cancer treatment with Oral RAD001 given Daily) study.
- Stereotactic body radiation therapy (SBRT) for early-stage non-small cell lung cancer (NSCLC) results in "excellent three-year local control and survival rates,"



McDaniel



researchers report based on four-year results of a prospective phase II study. In an online report by the *International Journal of Radiation Oncology, Biology, Physics*, **Achilles Fakiris**, MD, and colleagues describe 70 patients with inoperable stage T1 or T2 NSCLC, measuring 7 cm or less, who were treated with a high potency SBRT regimen consisting of 60 to 66 Gy total radiation dose in three fractions. Median survival was 32.4 months and the three-year overall survival was 42.7 percent. Cancer-specific survival at three years was 81.7 percent. For patients with T1 tumors, median survival was 38.7 months and for T2 tumors it was 24.5 months. Median survival did not differ significantly in patients with peripheral versus central tumors. Based on the study, use of SBRT results in high rates of local control in medically inoperable patients with Stage I NSCLC.

- **Stephen Williams**, MD, posthumously received the Indiana Cancer Consortium (ICC) Award for Outstanding Contributions to Cancer Control at the ICC's spring meeting April 6. Williams played an instrumental role in the establishment of the ICC, and he worked with the American Cancer Society and the Indiana State Department of Health in forging the Indiana Cancer Control Plan 2005-2008 to ensure Indiana received federal funding for comprehensive cancer control. Under his leadership, the ICC grew from a few organizations interested in cancer control to a statewide partnership of 79 member organizations.

### **New members**

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**Jamie Case**, PhD

Associate member

*Department of Pediatrics*

**Jey-Hsin Chen**, MD, PhD

Affiliate member

*Department of Pathology and Laboratory Medicine*

**Markus Fitzek**, MD, MSc

Affiliate member

*Department of Radiation Oncology*

**Tracy Vargo-Gogola**, PhD

Associate member

*Department of Biological Sciences*

### **New grants**

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**Sherif Farag, MBBS, PhD**

"Enhancing Cord Blood Stem Cell Engraftment by CD26 Inhibition in Patients with Hematological Cancers"

V Foundation for Cancer Research

**Reuben Kapur, PhD**

"Role of Vav and Rac in KIT Oncogenesis"

NIH-NHLBI

**Yan Xu, PhD**

"Critical Evaluation of LPCs Markers for Colorectal Cancer"

NIH-NCI

**Mervin Yoder, MD**

"Lymphopoietic Development in the Extra-embryonic Yolk Sac"

NIH-NIAID

**C. Max Schmidt, MD, PhD,  
MBA**

"Mechanisms of Alcohol/Alcoholism-  
induced Liver Neoplasia"

NIH-NIAAA