

## New 'Civil Rights Bill' for Patients

**A**s patients become increasingly aware of Personalized Medicine and the associated testing that's becoming available for understanding one's risk for disease and response to therapy, they are going to be asking their primary care physicians about genetic testing.

One of their major concerns will be about how their genetic testing results could be used against them by insurance companies, employers and potential employers. Physicians can now assure their patients that such information is protected by law.

On May 21, President Bush signed into law the Genetic Information Nondiscrimination Act (GINA). This represents the first and only federal legislation that provides protections against discrimination in health insurance coverage and employment settings, based on an individual's genetic information. Health insurance protections offered by GINA, which will prevent insurance companies from requesting genetic

information or adjusting prices based on results, are slated to be in effect by May 2009. Employment protections, which prevent employers from asking about genetic information or making testing a requirement for employment, will be in place six months after that.

This is a major step forward for the emerging field of Personalized Medicine. It is a dramatic augmentation of HIPAA protections, and it has been hailed as the first major civil rights legislation of the 21st century.

### **Daniel Sedmak, MD**

Executive Director  
OSU Center for Personalized  
Health Care



Daniel Sedmak, MD



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September 2008

## Signature Program Update: Heart

(Heart is one of six designated Signature Programs at The Ohio State University Medical Center, along with Cancer, Critical Care, Imaging, Neurosciences and Transplantation. The Heart Signature Program is led by Thomas Ryan, MD, whose column follows.)

Cardiovascular care, research and education are brought together through Ohio State's Heart Center. Our goal is provide excellent patient care while advancing cardiovascular medicine by developing and applying new technologies to all aspects of heart care - from cardiovascular medicine to cardiothoracic and vascular surgery programs, from electrophysiology to advanced imaging - as we address each patient's unique cardiac and vascular needs.

The cornerstone of our clinical program is the Richard M. Ross Heart Hospital, which has seen a nearly 40-percent increase in admissions in the four years since it opened (see page A-4.) In keeping with the Medical Center mission, we are on the forefront of personalized health care, developing and leveraging genetic discoveries to treat cardiac disease and train future generations of heart and vascular care specialists.

Should you have any questions about our cardiovascular program or wish to confidentially discuss a case, I am happy to take your call at any time. You may reach me at (614) 247-7857.



Thomas Ryan, MD

Sincerely,

### Thomas Ryan, MD

Director, Ohio State's Heart Center

John G. and Jeanne Bonnet McCoy Chair in Cardiovascular Medicine

Thomas Ryan, a nationally recognized leader in echocardiography, directs The Ohio State University Heart Center.

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### Kenneth Andreoni, MD

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## news briefs

### Program Helps Patients 'SOAR' Above Odds

The Ohio State University Medical Center's Burn Center has implemented a peer support program that links former burn patients with others affected by burn injuries. The Survivors Offering Assistance in Recovery (SOAR) program enables burn survivors or family members, with training from Burn Center staff, to provide peer support to current burn patients. "This program gives caregivers the necessary information and skills to make the transition from burn victim to burn survivor much easier," says Sidney Miller, MD, director of the Burn Center. "Those who have recovered from a burn injury find it a valuable experience to offer hope and support to other victims." Volunteers and peer supporters are screened and receive eight hours of instruction from Ohio State through lectures, discussion, case studies and role-playing.

For more information or to contact Dr. Miller, call (800) 293-5123.



Sidney Miller, MD

### Common Laser Surgery Used in Uncommon Cancer

Eye melanoma, the most common cancer that develops within the eyeball in adults, can be treated with laser surgery if detected early. "If the tumor is discovered when it is small, it may be treated without removal of the eye," says Frederick Davidorf, MD, an ophthalmologist at The Ohio State University Medical Center. "If the tumor is relatively thin, it can be destroyed with laser surgery." Approximately 90 percent of eye melanomas, also known as uveal melanoma, develop in the choroid. "Laser treatments may be used for very early, very thin melanomas that are not near the optic nerve," says Thomas Olencki, DO, a medical oncologist at Ohio State's James Cancer Hospital and Solove Research Institute who specializes in treating eye melanoma. "These patients require closer follow up, but using the laser can preserve most of their vision in many cases and almost assure their long-term survival."

For more information or to contact Drs. Davidorf and Olencki, call (800) 293-5123.



Thomas Olencki, DO

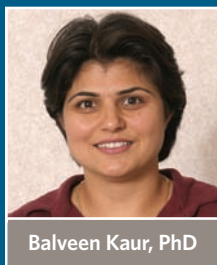


## research highlights

### Oncolytic Viruses Influence Tumor Growth

Viruses genetically designed to kill cancer cells offer a promising strategy for treating incurable brain tumors such as glioblastoma, but the body's natural defenses often eliminate the viruses before they can eliminate the tumor. However, findings from an animal study at The Ohio State University Comprehensive Cancer Center (OSUCCC) help explain why this happens and could improve this therapy. The research, published in the journal *Molecular Therapy*, shows that as the viruses destroy tumor cells, they cause the cells to make proteins that stimulate the growth of new blood vessels to the tumor. The vessels transport immune cells that eradicate the viruses and stimulate tumor re-growth. "This points to an important side effect of oncolytic viral therapy that may limit its efficacy," says Balveen Kaur, PhD, an OSUCCC researcher. "Knowing this, we can work to design a combination therapy that will inhibit this effect and enhance viral therapy."

For more information or to contact Dr. Kaur, call (800) 293-5123.



Balveen Kaur, PhD

### Study Examines Driving Habits of Epilepsy Patients

Research shows that people with epilepsy continue to drive despite medical restrictions. In a study at The Ohio State University Medical Center, 26 percent of patients with epilepsy reported having an accident due to a seizure, and 19 percent said they were dishonest about seizures in order to drive. Published in the journal *Epilepsy and Behavior*, the study found that prior attitudes and behavior are difficult to change and that participants' main reason for driving is their occupation. "Instead of focusing on the dangers of driving, it is important to discuss with patients how to overcome perceived and actual barriers to transportation," says Lucretia Long, RN, MS, CNP, study author and clinical assistant professor of Neurology. "Addressing health behaviors while counseling persons with epilepsy is also crucial."

For more information or to contact Long, call (800) 293-5123.

## Ross Heart Hospital Meets Growing Demand

**W**ith the recently completed expansion of Ohio State's Richard M. Ross Heart Hospital, each floor is dedicated to a specific service, enhancing the hospital's ability to provide personalized health care.



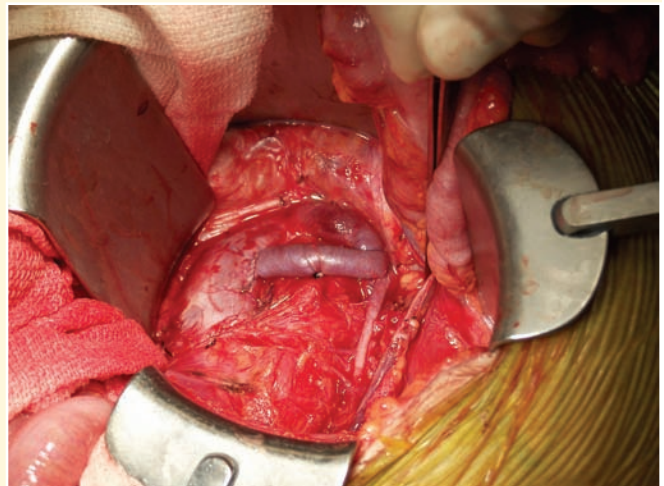
The addition of two floors has increased capacity from 90 to 150 inpatient beds at the hospital, which opened in 2004 as one of the nation's first freestanding, comprehensive academic heart hospitals. Services include cardiac catheterizations, angioplasties, open-heart surgery, cardiovascular imaging, vascular interventions and electrophysiology. Housing all heart-related services in a single building promotes collaboration among disciplines at Ohio State's Heart Center, says Heart Center Director Thomas Ryan, MD, who notes the advantages of devoting floors to specific services. "Such 'geographic clustering' ensures that highly specialized care is available for each patient," Ryan says. "Evidence also shows that patient and staff satisfaction improves when similar patient populations are grouped together."

The following disciplines have 30 dedicated beds each, located on separate floors: interventional cardiology on 2 Ross; heart surgery on 4 Ross; and heart failure on 6 Ross. The expansion also provides 60 new inpatient beds for vascular diseases and surgery on 5 Ross, and electrophysiology/arrhythmia on 7 Ross.

### Vascular Diseases & Surgery

"Our patients benefit by our having a centralized, dedicated unit for vascular services," says Patrick Vaccaro, MD, director of the Division of Vascular Diseases and Surgery. "Standardizing care - with the dedicated, specialized nurses and ancillary personnel working in a centralized area - enhances patient outcomes."

With seven vascular surgeons on staff, the program has grown in clinical volume and research in each of the past four years. "We are doing more surgery on the thoracic aorta, for both thoracic and thoracoabdominal aneurysms, and we



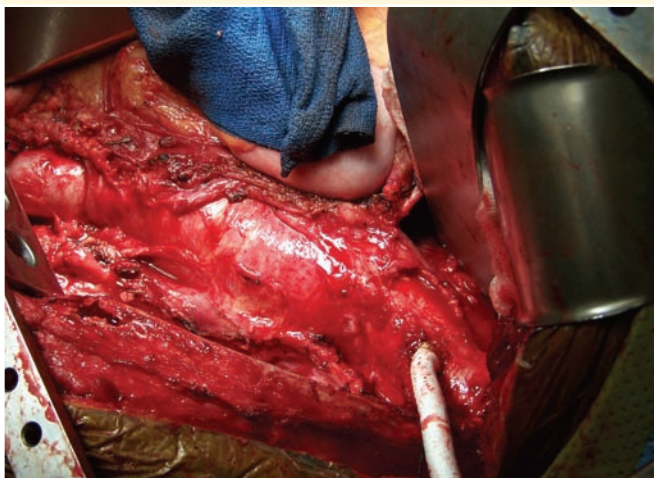
*Left renal vein to inferior vena cava venous bypass*



Ohio State's Ross Heart Hospital is a national model for integrated patient care, research and education. Universal Beds in technologically advanced rooms provide for better patient care and comfort by allowing the care team to deliver services to patients' rooms. This minimizes the need for transportation and allows patients to remain in the same private room with consistent caregivers throughout their stay.

are steadily increasing the number of repairs completed as endovascular procedures, with abdominal aneurysm up by nearly 50 percent - which is easier on the patient," Vaccaro says.

"The collaborative relationship our Division shares with colleagues in cardiology, cardiac surgery and other disciplines helps us provide a high level of personalized care," he adds. "Our new physical proximity further enhances this collaboration."



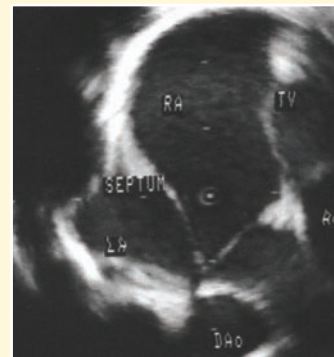
*Thoracoabdominal aortic aneurysm*

## Electrophysiology

"Every patient is evaluated in our electrophysiology-led Arrhythmia Clinic," says Emile Daoud, MD, FACC, who heads the Electrophysiology Program. "Because we rely on the

services of specialties throughout the Ross Heart Hospital to provide integrated, personalized care for patients suffering from a variety of arrhythmias, our new location gives us better access to specialists in echocardiography, cardiothoracic surgery and other disciplines."

Ohio State's Heart Center is providing innovative treatment for atrial fibrillation, which Daoud says is the most recent arrhythmia to be addressed by ablation technology. "With our Stereotaxis Magnetic Navigation System and advancements in catheter-based technology, we are routinely restoring normal heart rhythm, even in advanced stages of atrial fibrillation. Thanks to such advances, we have access to treatment modalities that can be offered to cure rather than merely treat atrial fibrillation and other arrhythmias."



*This is an image from an ultrasound catheter placed inside the heart. A needle is positioned to puncture the correct area of the heart to gain access to the left side. The site of puncture is where the heart wall is tented at about 6 o'clock.*

With nine electrophysiologists on staff, each adept at a variety of modalities, personalized treatment strategies can be developed that consider not only the type of arrhythmia but also the multitude of other features that impact individual healthcare needs.

## OSU Implements Regional STEMI Program

"Over the past several years, extensive research has demonstrated that, in patients with ST-Elevation Myocardial Infarction (STEMI), early restoration of blood flow improves survival and overall outcomes, as a greater volume of viable heart muscle is salvaged," says Ernest Mazzaferri Jr., MD, medical director of the Ross Heart Hospital Regional STEMI program.

"Our goal is to more quickly and efficiently move patients into our cath lab from outlying areas where cardiac catheterization labs are not readily available," adds Mazzaferri, an interventional cardiologist. "Because of our recent efforts, Ross Heart Hospital has an average 'door-to-



**Ernest Mazzaferri, MD**

balloon' time of less than 60 minutes, compared with the national standard of 90 minutes."

Mazzaferri and colleagues are working with local and regional Emergency Medical Services (EMS) personnel, enabling them to activate Ohio State's STEMI protocol from the field so treatment can begin without delay. Regional areas to be involved include Bellefontaine/Logan County; Cambridge/Guernsey County; Coshocton/Coshocton County; Delaware/Delaware County; Newark/Licking County; Marysville/Union County; Wooster/Wayne County; and others.

## What Are You Saying, Doc?

*"Health literacy is the currency of success for everything that we do in primary and preventive medicine. Health literacy can save lives, save money, and improve the health and well-being of millions of Americans."*

*Richard Carmona, MD, MPH, FACS  
Former U.S. Surgeon General*

"Even well-educated patients sometimes find it difficult to understand complex medical information, especially when they are concerned about their health," says Sandra Cornett, RN, PhD, of the Outreach and Engagement Office in Ohio State's College of Medicine.

"For the 48 percent of those in Ohio who fall into the two lowest reading levels - below 8th grade level - not understanding what their physician is saying may have devastating health consequences," she adds.

Cornett, who directs the Area Health Education Center's (AHEC) Clear Health Communication Program, explains that health literacy, as defined by the National Institutes of Health, incorporates a range of abilities: to read, comprehend and analyze information; to decode instructions, symbols, charts and diagrams; to weigh risks and benefits; and to make decisions and take action associated with disease prevention and health promotion.

"Patients who have low literacy skills are ashamed of this problem," says Cornett. "As a consequence, they rarely tell anyone, including family members, let alone medical professionals around whom they may feel intimidated. They avoid asking questions, which leads physicians to believe they have understood diagnoses, medication instructions and privacy matters, when in fact they have not."

The AHEC Clear Health Communication Program helps physicians and other healthcare professionals understand how to break down communication barriers. Free interactive educational modules are available to Ohio physicians on AHEC's Web site at <http://medicine.osu.edu/ahec/4977.cfm>. CME credit is available to those who register and complete post-education tests.

"Topics range from identifying outward signs of literacy problems to creating a shame-free environment, and from communicating effectively with those from other cultures to the effects of aging on health literacy," Cornett says. "There are other topics as well, and we recommend everyone begin with our overview module."

### Health Literacy Workshop Oct. 14-15

#### Topics:

- (Oct. 14) Health Literacy and Patient Safety
- (Oct. 15) Health Literacy and Chronic Disease Management

#### Keynote speaker:

Sue Stableford, MPH, MSB  
Director, Health Literacy Institute  
University of New England, Portland, Maine

#### Location:

University Plaza Hotel and Conference Center  
3110 Olentangy River Road  
Columbus, Ohio

To attend for a nominal fee, register at:  
<http://medicine.osu.edu/ahec/4977.cfm>



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## OSU Earns Nearly \$34 Million To Boost Translational Research

The Ohio State University Medical Center (OSUMC) has received a \$34 million Clinical and Translational Science Award (CTSA) from the National Institutes of Health to develop clinical and translational protocols that help identify and advance treatments for patients.

Medical researchers at Ohio State, in partnership with those at Nationwide Children's Hospital, will be led by OSUMC endocrinologist and CTSA principal investigator Rebecca Jackson, MD, associate dean for Clinical Research in Ohio State's College of Medicine. Jackson directs Ohio State's Center for Clinical and Translational Science (CCTS), which will leverage expertise from 16 colleges at Ohio State, along with scientists and clinicians at The Ohio State University Medical Center and Nationwide Children's Hospital.



Rebecca Jackson, MD

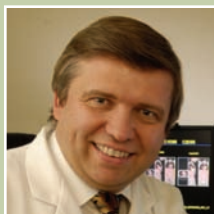
"The opportunities provided by the CTSA are enormously exciting for Ohio State investigators as well as the community," Jackson says. "This grant allows us to develop and refine educational and research approaches in clinical and translational science to enhance the rapid translation of new information to improve human health."

By receiving the CTSA, Ohio State has become part of a national consortium of institutions receiving NIH support to strengthen clinical and translational science that will lead to better patient care. Administered by the National Center for Research Resources, a component of the NIH, the CTSA program funds diverse and far-reaching approaches related to all aspects of research.

## Consortium Receives Nearly \$25 Million To Build Biomedical Imaging Network

The Ohio Imaging, Research and Innovation Network (OIRAIN), a consortium of Ohio universities and commercial enterprises, has received a grant of nearly \$25 million to build a network of biomedical imaging excellence in Ohio.

Led by Michael Knopp, MD, PhD, an internationally renowned researcher who directs Ohio State's Wright Center of Innovation in Biomedical Imaging, the partnership includes Case Western Reserve University, Wright State University and nine industrial and healthcare partners.



Michael Knopp, MD, PhD

"By making this grant to OIRAIN, Ohio is recognizing that imaging - which provides non-invasive, safe diagnoses and disease staging - is an efficient and cost-effective technology that will advance medicine, create a better quality of life for Ohioans and have a positive impact on the state's economy," Knopp says.

Awarded through the Ohio Research Scholars Program, \$24.87 million was recommended for the group, which is expected to contribute to Ohio's economic growth and create jobs and educational opportunities while advancing the understanding of biologic and disease mechanisms through noninvasive imaging. In addition, the state made nine other grants to consortiums led by University System of Ohio public universities, totaling \$143 million for the recruitment of 26 eminent scholars. Ohio State participates in half of the awards, with seven renowned research scientists in the areas of power and propulsion, materials development, advanced energy systems and layered sensing, as well as biomedical imaging.

