

## Preparing for the Future

**A**s Ohio State University Medical Center prepares for a future of medicine that includes trends indicating an increasing need for critical care, a heightening emphasis on patient satisfaction and a rising acceptance of and reliance on technology, demand for services continues to grow.

In response, Ohio State's Medical Center is planning new facilities, expanding key services and leveraging technology to meet present and future needs of patients through personalized health care.

The 2006 opening of a 10-story Biomedical Research Tower, the recent completion of a new digestive diseases center at Ohio State's University Hospital, and current construction of two additional floors in Ohio State's Ross Heart Hospital, a new MRI facility and faculty office tower are all signs of recent growth at the Medical Center.



*"Years ago, patients were sometimes seen simply as recipients of care; today's philosophy is that they are active participants in their own care . . ."*

*E. Antonio Chiocca, MD, PhD*

"As we position for a future of shifting demographics and consequent increases in complications from chronic diseases and lifestyle behaviors, it is essential that we provide adequate critical care services," says Clay Marsh, MD, director of the Center for Critical Care at Ohio State's Medical Center.

"We are re-engineering the delivery of critical care to ensure we provide the highest quality of care possible," he adds.

As one of the Medical Center's Signature Programs, Critical Care is integrating with subspecialties such as heart, cancer, transplant, behavioral medicine and neurosciences (neurosurgery/neurology) to meet the intensive care needs of patients undergoing specialized care.

"This integration will allow us to personalize critical care services for these patients, focusing on their unique needs and concerns," Marsh explains. "In addition, our investigators are seeking to determine what factors may help critical care patients do better long term by identifying and understanding the relationship between genetics and

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outcomes. Our ultimate goal, of course, is to move from treating critical care patients to preventing the need for our specialized care."

### Patient-Centered Design

The most important component of the Medical Center's preparation for future trends is meeting the needs of patients and their families. In addition to diagnostic, medical and surgical needs, patient comfort and satisfaction are priorities.

"Years ago, patients were sometimes seen simply as recipients of care; today's philosophy is that they are active participants in their own care," says E. Antonio Chiocca, MD, PhD, chair of the Department of Neurological Surgery. "As patient counseling and education have become increasingly important, and because personalized health care involves sensitive personal information, such as genetic findings, patients need to be in an area that provides privacy so they can openly discuss treatment plans in an environment where they feel comfortable and cannot be overheard.

"In addition, family members are closely involved today. That's why Ohio State's new patient-centered rooms in the Ross Heart Hospital have enough space for family members to stay, when the patient wishes. For my patients, many of whom are unable to speak or see during post-op recovery, having a loving family member nearby facilitates recovery."

Patient-centered rooms are one of the many ways the Medical Center is personalizing health care to meet current and future patient/family needs.

**For more information or to contact Drs. Marsh or Chiocca, call (800) 293-5123.**



Since 2001, Ohio State's Medical Center has been consistently ranked as one of the country's "Most Wired" hospitals by *Hospitals & Health Networks*, the journal of the American Hospital Association, which compiles an annual list of the top 100 Most Wired hospitals. The prestigious designation refers to the use of advanced information technology tools by the nation's hospitals to provide quality care and patient safety. The Medical Center also has been ranked as one of the nation's 25 most wireless hospitals. According to the journal, those listed, on average, have risk-adjusted mortality rates 7.2 percent lower than other hospitals.



Clay Marsh, MD



E. Antonio Chiocca, MD, PhD

### Leveraging Technology

Nearly 15 years ago, the Medical Center began positioning for a future that would be dominated by electronic medical records. Since then, considerable progress has been made toward a paperless world on the inpatient side. This is being extended to the outpatient environment.

"The Outpatient Electronic Medical Record (OPEMR) will extend clinical, financial and operational benefits to physicians who treat outpatients," says Milisa Rizer, MD, a family practice physician and clinical director of OPEMR. "Automated alerts about medication conflicts, pending tests and results, and reminders about periodic check-ups will now be available in physician offices and at clinic sites.

"In addition to the benefits of having a patient's physician office record integrated with his or her hospital record, OPEMR will also facilitate delivery of personalized health care," Rizer adds. "By using a Web-based 'patient portal,' patients will be able to interact directly with their physician and view their medical record online. OPEMR also will make it easier for patients, as well as their primary and other specialty care physicians, to learn about new treatments made available through basic research and clinical trials."

**To learn more about OPEMR, call Dr. Rizer at (614) 293-2653.**





From Ohio State University Medical Center

# news briefs

## Ohio State and Children's Hospital Form Perinatal Care Center

A collaboration between Ohio State University Medical Center and Columbus Children's Hospital offers a unified source of medical care for unborn babies who require specialized attention before, during and after pregnancy. The new Perinatal Care Center joins physicians from the maternal-fetal medicine and pediatric specialist groups, respectively led by Richard O'Shaughnessy, MD, director of fetal therapy at Ohio State's Medical Center, and Donna Caniano, MD, surgeon-in-chief at Children's. Each mother receives a personalized plan enabling her to meet all the specialists involved in her care and the care of her baby. Nurse coordinators work with the patient throughout her pregnancy, preparing the family for their baby's delivery and care.

For more information or to contact

Drs. O'Shaughnessy or Caniano, call (800) 293-5123.



G. Nicholas Verne, MD

## Director Selected for Gastroenterology Division

G. Nicholas Verne, MD, has been appointed director of the Division of Gastroenterology, Hepatology and Nutrition in the Department of

Internal Medicine at Ohio State University Medical Center. Verne, former chief of the Gastroenterology Section at North Florida/South Georgia Veterans Health System, comes to Ohio State from the University of Florida College of Medicine. A 1989 graduate of the State University of New York Medical School, Verne completed his residency in internal medicine at Albany Medical College and his postdoctoral fellowship in gastroenterology at the University of Florida. He has also held a faculty appointment at the Medical University of South Carolina. A specialist in irritable bowel syndrome, Verne is known for both his research and clinical expertise.

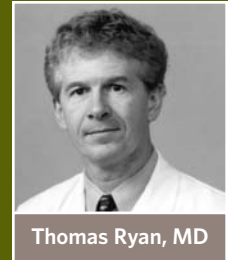
For more information or to contact Dr. Verne, call (800) 293-5123.

## OSU Heart Center Director Appointed

Thomas Ryan, MD, former director of the Duke University Heart Center and an expert on cardiac ultrasound technology, became director of the Ohio State University Heart Center July 1. The Heart Center includes

cardiovascular medicine, vascular surgery and cardiothoracic surgery services across the patient care, research and education mission areas, primarily involving Ohio State's Ross Heart Hospital and the University's Davis Heart and Lung Research Institute. Ryan's work emphasizes the application of new echocardiographic techniques to clinical diagnosis. He leads numerous clinical trials examining the use of contrast agents for evaluating ventricular function and blood flow in conjunction with stress echocardiography. Ryan earned his medical degree at Indiana University, where he also served his residency in internal medicine and a research fellowship in cardiology. He later earned a master of business administration degree from Duke.

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



Thomas Ryan, MD

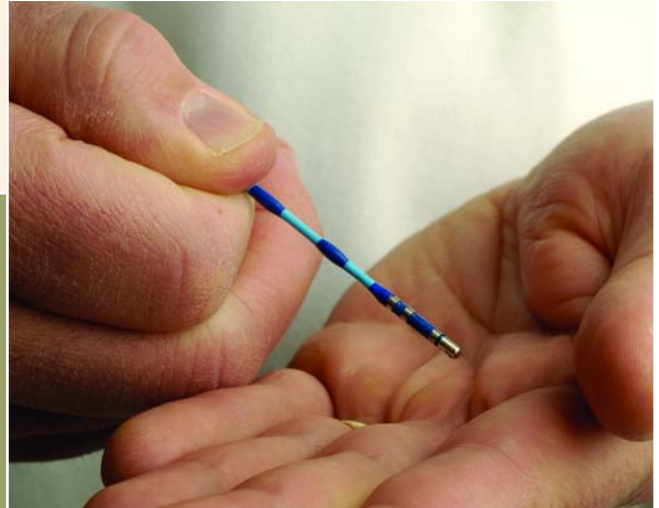
## Global Diabetes Summit Set for Nov. 29-Dec. 1

Medical leaders from five continents will gather to discuss the global diabetes pandemic and the impact of this disease on international health care at the 2007 Global Diabetes Summit hosted by Ohio State University Medical Center from Nov. 29-Dec. 1 at The Hilton at Easton in Columbus, Ohio. During the symposium, titled "Conquering Diabetes Frontiers with New Discoveries and Technologies," experts will present the latest in diabetes research and formulate an interdisciplinary road map for prevention, detection and treatment of diabetes patients.

For more information or to make a reservation, visit [www.medicalcenter.osu.edu/go/diabetessummit](http://www.medicalcenter.osu.edu/go/diabetessummit).

# Stereotaxis: Next Generation of Catheter-Based Treatment

In addition to medical, catheter and surgical-based treatments for arrhythmias, the next generation of catheter-based care, Stereotaxis Magnetic Navigation System, is now available through the Electrophysiology Program at Ohio State University Medical Center's Ross Heart Hospital.



"Patients referred to Ohio State for this technique benefit by having a quicker, safer procedure and, in many cases, by no longer requiring medication for their heart rhythm problems."

Emile Daoud, MD

"Although complications from conventional ablation, performed using manual catheters, are rare, when they do occur the results can be devastating," says Emile Daoud, MD, a cardiologist and electrophysiologist who directs the Electrophysiology Program. "That's why we are so excited about this new technology that provides precise control for ablation procedures to treat atrial fibrillation and other arrhythmias."



Emile Daoud, MD

Daoud says one challenge when controlling catheters by hand is achieving a precise and stable position with the tip of the catheter in the exact spot to correct electrical

abnormalities. A beating heart and variability in patient anatomy make this particularly challenging.

"Because there are many anatomical variations of the human heart, and because trying to steer and torque a catheter that has been introduced at the femoral vein is difficult, having a system that allows us to accurately position the ablation tip and hold it in place, and to precisely repeat catheter movement so to return to one location within the heart, is a huge advance," he says.

With the Stereotaxis Magnetic Navigation System, instead of manual manipulation, ablation catheters are

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## OSU Atrial Fibrillation Clinic

The Atrial Fibrillation Clinic at Ohio State's Ross Heart Hospital provides an initial consultation and, when necessary, management of more complex issues for patients referred by primary care physicians and/or cardiologists. The multidisciplinary clinic includes electrophysiologists, nurse practitioners, electrophysiology research nurses and consultations with a thoracic surgery team.

Patients are evaluated for potentially reversible causes of arrhythmia, underlying cardiac diseases and the need for pharmacologic and non-pharmacologic therapies for rate control, thromboembolic prophylaxis or restoration of sinus rhythm. Patients also are considered as candidates for emerging technologies available through research protocols and clinical trials. If you think your patients would benefit from this evaluation, call the Ross Heart Hospital at **(888) 293-ROSS** and ask for the Atrial Fibrillation Clinic.





From Ohio State University Medical Center

# research highlights

## Ohio State Chosen for Revamped Clinical Trials Network



Susan Koletar, MD

The National Institute of Allergy and Infectious Diseases (NIAID) has awarded a seven-year, multimillion-dollar grant that will enable Ohio State University Medical Center to continue testing AIDS treatments, vaccines and prevention methods. The award came after the NIAID

chose Ohio State's HIV/AIDS Clinical Trials Unit as part of its restructured HIV/AIDS research network. "We have been in the Institute's AIDS Clinical Trials Group since 1987 and have participated in studies evaluating treatments for HIV infection and related complications," says principal investigator Susan Koletar, MD, director of the Ohio State program. "As part of this network, we have helped alter the standard of care for HIV-infected individuals, resulting in dramatic decreases in illness and death." The NIAID recently reorganized its AIDS clinical trials research network.

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

## Study to Help Ensure Health of Kidney Donors



Todd Pesavento, MD

Ohio State University Medical Center and a few other leading transplant centers are in a study to determine how kidney donors' health is affected by a transplant. For up to three years, researchers will monitor 200 donors and record their kidney function and risk factors for heart disease and stroke. Smaller retrospective studies

have shown about 30 percent of donors will develop high blood pressure. "This is the first large prospective study looking at donors for an extended period," says Todd Pesavento, MD, medical director of kidney transplantation and principal investigator for the study at Ohio State. "We don't have scientific, prospective, long-term studies that show donors lead healthy lives, although it's generally felt that being a donor is safe and that donors have normal lifespans."

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

## Discovered: First Inherited Mutation for CLL

Researchers at the Ohio State University Comprehensive Cancer Center have discovered an inherited gene mutation that increases risk for chronic lymphocytic leukemia (CLL). The study, published in the June 1 edition of the journal *Cell*, shows that an inherited mutation in a tumor-suppressor gene called death associated protein kinase 1 (DAPK1) greatly reduces the gene's protective activity. The study further shows that a later, non-inherited chemical change called DNA methylation turns the gene off altogether, leading to leukemia. The findings may help identify people at risk for CLL and offer insight into apoptosis. "Our findings identify for the first time a gene that appears associated with hereditary CLL," says co-author John Byrd, MD. Albert de la Chapelle, MD, PhD, and Christoph Plass, PhD, were co-principal investigators.

**For more information or to contact**

**Drs. Byrd, de la Chapelle or Plass, call (800) 293-5123.**

## First Gene Therapy in Parkinson's Shows Promising Results

The world's first gene therapy clinical trial in patients with advanced Parkinson's disease significantly reduced their symptoms, suggesting that surgical delivery of a modified gene to the brain could be a safe treatment for neurodegenerative diseases. The results suggest gene therapy may be an alternative to medications, which lose effectiveness in Parkinson's patients, and to deep brain stimulation, the current best option to reduce movement problems associated with the disease, says Matthew During, MD, PhD, senior author of the study. Researchers delivered the engineered gene to the subthalamic nucleus, the same region that is the focal point for deep brain stimulation. The phase I trial results appear in the June issue of the journal *The Lancet*.

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



Matthew During, MD, PhD

## Training the Healers of Tomorrow

To quip, "It's not your father's medical school," would be an understatement in describing how the Ohio State University College of Medicine is adapting traditional curriculum to better prepare future physicians to provide personalized health care. "There's been an explosion in the amount of medical information and technology available," says Daniel Clinchot, MD, associate dean for Medical Education and Outreach. "In response, we have shifted the focus of our curriculum from presentation of bodies of knowledge to an emphasis on developing lifelong learning skills."



Daniel Clinchot, MD

Clinchot says physicians will need to access large bodies of information to continually update their knowledge and apply it to clinical reasoning and problem solving. "As personalized health care becomes a reality, doctors will need not only to understand how new findings can be translated into care,

but to look closely at an individual's health profile and determine where genetic predisposition and lifestyle choices impact clinical pathways."

He says primary care physicians play a key role in developing future healers. "Community-based physicians have a dramatic impact on medical education. This is a formidable group of individuals who, in today's construct, have a role in every year of medical school, not just the first two years, as was true in the past. For students to see firsthand how a practice is operated and understand the medical needs of community-based patients - as opposed to those who seek treatment at a tertiary care facility - is invaluable, and has often helped students decide to pursue primary care," Clinchot says.

He says students also must understand other healthcare developments, "including how alternative and complementary disciplines may impact interactions with patients, how

ubiquity of the electronic medical record enhances outcomes, and how an increasing interest in global medicine affects our ability to function on multidisciplinary healthcare teams."

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

just the  
**FACTS**

### Around the World

"Our medical students have demonstrated a tremendous interest in gaining a worldview of disease and understanding the effect of culture, socio-economic conditions and geography on health," says Daniel Sedmak, MD, director of the Office of Global Health Education in Ohio State's College of Medicine.

"Two years ago we created this office in response to a desire by medical students to learn more about health issues of other countries," says Sedmak, who also is executive director of the OSU Center for Personalized Health Care. "We offer international rotations as part of a global health curriculum, including didactic teaching and self-study using a virtual reading room that contains articles on the global health spectrum. Other goals are to foster within students a spirit of service, cultural appreciation and global partnership that will help lessen the worldwide burden of disease."

Since the office opened, more than 100 students have experienced the disparity of global health in about a dozen countries such as India and South Africa, and other clinical sites are planned. "Our goal is to ensure that our students are in safe and mentored situations while experiencing cultures and medical conditions that cannot be replicated in the United States," Sedmak says.

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

**ACT  
NOW**

### Exploring Preceptorship

Acting as a preceptor is a giving back to the profession. Ohio State's College of Medicine confers preceptors a faculty appointment as clinical assistant professor, provides a newsletter with CME Category II/I-B credits, and offers access to clinical presentations via the Web from the OSU Center for Continuing Medical Education. For more about becoming a preceptor, visit <http://medicine.osu.edu/ahec/4992.cfm> and contact Terry Bahn, EdD, director of Outreach & Engagement in the College of Medicine, at (614) 292-2508 or via e-mail at [bahn.3@osu.edu](mailto:bahn.3@osu.edu).

# new faces



**Stephen Smith, Jr., MD**

**Specialty:**

Otolaryngology

**Clinical Interests:**

Facial plastic and reconstructive surgery

**Residency:**

Ohio State University Medical Center

**Fellowships:**

Albany Medical Center, N.Y.;  
Stratton V.A. Hospital, Albany, N.Y.



**Stephen Rose, MD**

**Specialty:**

Orthopedics

**Clinical Interests:**

Upper extremity, hand

**Residency:**

Brooke Army Medical Center,  
San Antonio

**Fellowship:**

Walter Reed Army Medical Center,  
Washington, D.C.



**Hugh Ehrenberg, MD**

**Specialty:**

Maternal Fetal Medicine

**Clinical Interests:**

Medical complications in pregnancy,  
including obesity

**Residency:**

The Cooper Health System/Robert Wood  
Johnson University Medical Center,  
Camden, N.J.

**Fellowship:**

MetroHealth Medical Center, Cleveland

To contact any of these physicians, please call  
OSU Care Connection at 1-800-293-5123.

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directed by exerting a specific magnetic vector. The magnetic fields are created by two powerful magnets that are part of this advanced electrophysiology laboratory. Encased on pivoting arms on either side of the patient, the magnets offer electrophysiologists extremely precise control, regardless of the distance or complexity of the path traveled through blood vessels and cardiac anatomy.

Using high-resolution digital imagery and user-friendly joystick technology, electrophysiologists can quickly move ablation catheters and treat the source of the rhythm abnormality. Also, since the catheters are designed with magnets in the tips, the catheters are pulled by the magnetic field around the heart rather than pushed by human hands from the femoral vein access. With this steering mechanism, the catheters can be soft and floppy, essentially eliminating the risk of cardiac perforation.

"Patients referred to Ohio State for this technique benefit by having a quicker, safer procedure and, in many cases, by no longer requiring medication for their heart rhythm problems," Daoud says.

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