



# @ Washington University in St. Louis

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## University News

### The future of medicine is set in steel

The future of medicine is taking shape at the heart of Washington University Medical Center. Construction crews have framed the BJC Institute of Health at Washington University in 8,210 tons of steel beams. They are on schedule with the 11-story, 700,000-square-foot building, despite a year of record-setting rain. The School of Medicine and Barnes-Jewish Hospital plan to open the BJC Institute of Health, located at the corner of Euclid Avenue and Children's Place, in December 2009. The \$235 million building will be the hub for BioMed 21, the University's initiative to speed scientific discovery and to rapidly apply breakthroughs to patient care. It also will house Barnes-Jewish Hospital support operations — potentially dietary services, clinical laboratories, and pharmacies.



Courtesy Photo

The \$235 million BJC Institute of Health at Washington University will be the hub for BioMed 21, the University's initiative to speed scientific discovery and to rapidly apply breakthroughs to patient care.

### Wihl to become dean of faculty of Arts & Sciences

Gary S. Wihl, Ph.D., dean of Rice University's School of Humanities and a highly respected scholar and academic leader, will become dean of the faculty of Arts & Sciences July 1. Wihl will succeed Ralph S. Quatrano, Ph.D., the Spencer T. Olin Professor and former chair of the Department of Biology in Arts & Sciences, who has been serving as interim dean of the faculty of Arts & Sciences since July 1, 2008, when Edward S. Macias, Ph.D., was selected to become provost and executive vice chancellor for academic affairs.

### On the Riverfront: St. Louis and the Gateway Arch on view through to March 9

The Sam Fox School of Design & Visual Arts will explore the history surrounding the creation of the St. Louis Arch with an exhibition and symposium titled *On the Riverfront: St. Louis and The Gateway Arch* through March 9. *On the Riverfront* will profile the people, events, and conditions that culminated in the 1947-48 competition from which Eero Saarinen's design was chosen, as well as the monument's subsequent construction and its place in American architecture. In conjunction with this exhibition, *Eero Saarinen: Shaping the Future* — the first major museum retrospective dedicated to the Finnish architect — will be on view at the University's Mildred Lane Kemper Art Museum through April 27.

## Research

### Novel technique changes lymph node biopsy, reduces radiation exposure in breast cancer patients

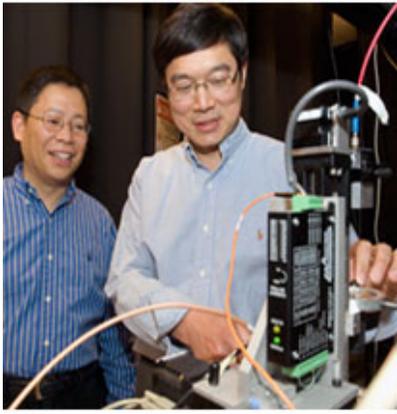
Information obtained from a new application of photoacoustic tomography (PAT) is worth its weight in gold to breast cancer patients. For the first time, two scientists in the Department of Biomedical Engineering at Washington University — Lihong Wang, Ph.D., the Gene K. Beare Distinguished Professor, and Younan Xia, Ph.D., the James M. McKelvey Professor — have used gold nanocages to map sentinel lymph nodes (SLN) in a rat noninvasively using PAT. Wang's lab is the largest PAT lab in the world, credited with the invention of super-depth photoacoustic microscopy, and Xia's lab invented the gold nanocages.

### Free exercise and nutrition program in Brazil could serve as model in United States

What if free exercise classes were offered in public spaces such as parks, beaches, and recreation centers? When a city government in Brazil tried such a program, it greatly increased physical activity among community members. A group of health researchers, led by Ross C. Brownson, Ph.D., professor at the George Warren Brown School of Social Work, who studied the program believe it could also work in U.S. cities with warm climates.

### Genetic interactions are the key to understanding complex traits

In recent years, genetic studies have uncovered hundreds of DNA variations linked to common diseases, such as cancer or diabetes, raising the prospect that scientists can gauge disease risk based on information in an individual's genome. But the variations identified to date only account for a small percentage — typically one to three percent — of the overall genetic risk of any common disease. This disappointment has led geneticist Barak Cohen, Ph.D., and his group of researchers at Washington University School of Medicine to try to get a better handle on the ways genes interact to influence disease risk.



David Kilper/WUSTL Photo  
WUSTL biomedical engineers Younan Xia (left) and Lihong Wang examine the photoacoustic tomography machine (PAT) in Wang's Whitaker Building laboratory. Wang's lab is the largest PAT lab in the world, credited with the invention of super-depth photoacoustic microscopy.

## Features

### Plant Polymerases IV and V are special forms of Polymerase II

It's a little like finding out that Superman is actually Clark Kent. A team of biologists at Washington University has discovered that two vital cellular components, nuclear RNA Polymerases IV and V, found only in plants, are actually specialized forms of RNA Polymerase II, an essential enzyme of all eukaryotic organisms, including humans.

### Anxious older adults may benefit from antidepressants

Many older adults worry — a lot. Almost one in 10 Americans over the age 60 suffers from an anxiety disorder that causes excessive worry about normal things like health, finances, disability, and family. Although antidepressant drugs known as selective serotonin reuptake inhibitors (SSRIs) can improve anxiety symptoms in younger adults, little has been known about their effects in older people.

### Heard on Campus

"Exposure to green spaces has predictable, systematic, and measurable impacts on wellness and health. And you can divide this into physical health, psychological health, and functioning."

— William C. Sullivan, Ph.D., professor in the department of landscape architecture at the University of Illinois at Urbana-Champaign, during his lecture "Urban Landscapes, Community, and Wellness: Evidence from the Field" at the George Warren Brown School of Social Work on December 1, 2008



NASA  
A biologist has found that two kinds of RNA polymerase found in plants such as this Arabidopsis are actually derivatives of a much-studied Polymerase II found in eukaryotes. The find has implications for understanding gene silencing.

### Increased daily travel in animals leads to more offspring

The more an animal walks during the day, the less energy it has to reproduce. Makes sense, right? Not so fast, say two researchers at Washington University. They claim, based on a study of 161 mammalian species, that on average, animals that travel the longest distance each day to find food have the most offspring.

### Kudos

Bruce Lindsey, dean of the College of Architecture and Graduate School of Architecture & Urban Design, has been named one of the Most Admired Educators of 2009 by *DesignIntelligence*.

A. Peter Mutharika, the Charles Nagel Professor of International & Comparative Law and Professor of African & African-American Studies, has been awarded the 2008 International Jurists Award by the International Council of Jurists.

The Graduate School of Architecture & Urban Design is ranked sixth among "America's Best Architecture & Design Schools" by *DesignIntelligence* in its 2009 edition, based on a survey of leading practitioners.

### About @Washington University in St. Louis

This newsletter is prepared by Special Development Communications Projects staff in Alumni and Development Programs. It is intended to provide a brief summary of what is happening at the University. Alumni, parents, and friends of the University for whom we have valid e-mail addresses automatically receive @Washington University in St. Louis.

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