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e-News for Alumni, Parents, and Friends

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## University News

### Common ground for civil dialogue:

Washington University is establishing a scholarly and educational center that will focus on the role of religion in politics in the United States. According to Chancellor Mark S. Wrighton, "The establishment of the John C. Danforth Center on Religion & Politics reflects the legacy of Jack Danforth and his belief in the importance of a civil discourse that treats differences with respect." The creation of the center, which includes the recruitment of five new faculty members, is being made possible by a \$30 million endowment gift from the St. Louis-based Danforth Foundation. It is believed to be the largest gift of its kind made to a university to fund such an academic center. The Center opens this month.



John C. Danforth, former U.S. senator, speaks during a December 16 news conference.

### Olin Cup finalists in race for funding new ventures:

Seven entrepreneurs enter the final round of the Olin Cup business plan competition this month as they vie for \$75,000 in seed money. Ken Harrington, managing director of the Skandalaris Center for Entrepreneurial Studies, co-sponsor of the Olin Cup, emceed the recent "Elevator Pitch" event where 17 semi-finalists had two minutes each to present their business plans. The teams presented privately in front of 16 judges, then presented publicly in front of an audience. Harrington said, "The judges, audience, and I were very impressed with the quality of this year's pitches and ideas. We look forward to the next phase in the competition and seeing their full business plans." Winners will be announced in February.

### Biodiesel powers Washington University Dining Services truck:

The same oil used on the Danforth Campus to make french fries is powering a truck near you. Used vegetable oil from Washington University Dining Services kitchens is being reused as biodiesel in a dining services vehicle on campus. Through the program, which began in November, Washington University Dining Services is partnering with a St. Louis company, Kelley Green Biofuel, to prevent approximately 150 gallons of waste vegetable oil each week from ending up in a landfill. Instead, the cooking oil will be used as fuel in a dining services truck.

## Research

### Heme channel found:

Earlier this year, scientists at Washington University discovered a channel present in plants and many bacteria that both transfers and protects heme, a crucial component of the biomachinery that squeezes energy out of food and stores it for later use. The work, done by graduate student Elaine Frawley and biology professor Robert Kranz, was recently published in the *Proceedings of the National Academy of Sciences*.

### Inside the chicken brain:

Neuroscientists have tried all sorts of strategies as they try to understand the brain, but one of the most fruitful is to analyze a microcircuit consisting of a few neurons, all of whose interconnections can be traced. Microcircuits that have been analyzed in this way include the network that controls the chewing rhythm of a lobster's stomach (yes, it has teeth in its stomach), the reflex arc that allows a fruit fly to dodge a fly swatter, and the timing network that controls the heartbeat



Resource for Biocomputing, Visualization, and Informatics at the University of California, San Francisco

The cytochrome c protein (colored ribbons), holds in its embrace a heme group (white honeycomb) that in turn clasps an iron atom (orange ball). This molecule is essential to life and any chemical that interferes with its activity is lethal.

of a medicinal leech. A group at Washington University recently tackled a simple circuit in the visual processing area of a chicken's brain that detects motion in its field of view — with surprising results.

### Where you live matters:

In the United States, caring for a child with special health care needs usually means higher medical expenses for a family — particularly for low-income families, who spend a disproportionately large share of their income on their child's care. Yet the amount of financial burden for these families also depends on their state of residence, says Paul T. Shattuck, Ph.D., assistant professor of social work at Washington University. "The percentage of low-income families in a given state with out-of-pocket expenses that exceeded 3 percent of their income varied considerably according to state and ranged from 5 percent to 25.8 percent (the District of Columbia and Montana, respectively)."

### Features



### The power of words:

Having trouble figuring out what to get that high school senior on your gift list this holiday season? Or parents, want to make sure your 17-year-old keeps his or her mind on the right track while on winter break? A book might provide a simple solution. Washington University faculty offer their suggestions for the one book — in a few cases two or three — that a high school senior should read before heading off to college, whether to be better prepared for the college classroom or for living away from home or simply to be a more well-rounded person.

### A-maizing:

An international group of anthropologists offers a new theory about the diffusion of maize to the Southwestern United States and the impact it had. Published in the *Proceedings of the National Academy of Sciences*, the study, co-authored by Gayle Fritz, Ph.D., professor of anthropology in Arts & Sciences, and colleagues, suggests that maize was passed from group to group of Southwestern hunter-gatherers. These people took advantage of improved moisture conditions by integrating a storable and potentially high-yielding crop into their broad-spectrum subsistence strategy.

### Human guinea pigs link pay and risk levels:

Human guinea pigs do their homework before volunteering for high-paying clinical trials. New research shows that people equate large payments for participation in medical research with increased levels of risk. And when they perceive studies to be risky, potential participants spend more time learning about the risks and nature of the study. The findings, published in December in *Social Science and Medicine*, suggest there is a "mismatch" between current research guidelines for setting compensation levels and the assumptions participants make about the levels of pay and risk.

### Kudos

Four faculty members from Washington University have been named fellows of the American Association for the Advancement of Science. They are: Garland E. Allen, Ph.D., professor of biology; Scott Hultgren, Ph.D., the Helen L. Stoeber Professor of Molecular Microbiology and director of the Center for

### Heard on Campus

"Few issues are more critical to the well being of a democracy than how religious beliefs — or the denial of such beliefs — co-exist with civic virtue and how the 'truths' of the one are made compatible with the toleration and good will required by the other."

— John C. Danforth, former United States Senator and Ambassador to the United Nations, about the establishment of the John C. Danforth Center on Religion & Politics

Woman's Infectious Disease Research; **Andrey S. Shaw, M.D.**, the Emil R. Unanue Professor of Immunobiology in Pathology and Immunology and a Howard Hughes Medical Institute Investigator in Pathology and Immunology; and **Wayne Yokoyama, M.D.**, the Sam J. Levin and Audrey Loew Levin Chair for Research on Arthritis, professor of medicine, a Howard Hughes Medical Institute investigator, and director of the Medical Scientist Training Program.

Ten students received Fulbright Scholarships for the 2009-2010 academic year. They were: **Natalie Alm**, **Bobbie Bigby**, **Laurie Bonkowski**, **Courtney Caruso**, **Nicholas Efremov-Kendall**, **Anne Marie Gray**, **Jill Mead**, **Michael Raish**, **Maria Rosebury**, and **Nancy Twilley**. These students will spend a full academic year in a host country.

**Susan Appleton**, the John S. Lehmann Research Professor for 2009-2010 and the Lemma Barkeloo and Phoebe Couzins Professor of Law, has joined the U.S. Department of State's Advisory Committee on Private International Law. Appleton's appointment came through the Association of American Law Schools (AALS), which has a seat to fill with an AALS representative.

**Philip Burkhardt** and **Brendan Wittstruck**, juniors in the College of Architecture in the Sam Fox School of Design & Visual Arts, won second place in the 2009 Chase Community Development Competition as part of a joint proposal with students at the Massachusetts Institute of Technology. The national competition challenged students to work with nonprofit organizations to develop sustainable real estate projects in post-Hurricane Katrina New Orleans. Burkhardt and Wittstruck worked with adviser **Derek Hoeflerin**, senior lecturer in the College of Architecture and Graduate School of Architecture & Urban Design. Their submission, which received a \$15,000 seed grant, focused on **Robert's Fresh Market**, a grocery store on historic Broad Street that has been closed since the hurricane struck.

**Jr-Shin Li, Ph.D.**, assistant professor of electrical and systems engineering, has received the 2010 Young Investigator Award from the Air Force Office of Scientific Research. Li will receive a minimum of \$360,000 for three years to conduct research on robust manipulation and computation for inhomogeneous quantum ensembles. He was also a recipient of the NSF Career Award in 2007.

The John M. Olin Business School is ranked No. 2 on *BusinessWeek's* list for best career placement of 2009 full-time MBA graduates from the nation's leading business schools.

The Washington University women's soccer team lost 1-0 to Messiah College in the 2009 NCAA Division III National Championship final in San Antonio, Texas, on December 5.

**Younan Xia**, the James M. McKelvey Professor of Biomedical Engineering, is ranked No. 5 on the list of Top Ten Chemists, recently released by *Times Higher Education*. The list shows Professor Xia has the fifth highest number of citations per paper over the last decade.

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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