

Asia Extra

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Shanghai: Center of Expanded Learning Opportunities

by Alan Liu, Student Life

Washington University will launch a new study-abroad program in Shanghai run entirely by university faculty, starting in fall 2011.

The program will be offered in both the fall and spring semesters and will be hosted on the campus of Fudan University.

Currently, Washington University offers a faculty-led summer-language program in Shanghai, as well as spring and fall programs in Kunming, China, through the School for International Training.

Judy Mu, senior lecturer in Chinese, will relocate to China and serve as the resident director for the new program.

The program has been in development for three years, according to Professor Lingchei "Letty" Chen, director of East Asian Studies and academic director of the program. Noting the role of China in today's global society, Chen says it was important for the university to have a presence in China.

"Chancellor Wrighton has this vision of setting up various programs all over the world, especially with our partner universities through the McDonnell International Scholars Academy," Chen says. "Our vision is to provide our students with this opportunity to experience Chinese society firsthand, not just for two or three weeks as a tourist or on a short summer program. We wanted to give our students the opportunity to stay for three months at a time."

Students can opt to extend their study-abroad experience by studying for an entire year or transitioning to or from the summer program.



Washington University's new study-abroad program in Shanghai, set to launch in fall 2011, will take place on the campus of Fudan University. The program will be run entirely by Washington University faculty. (Edz'sta | Flickr)

Fudan University was chosen to host the program because of the university's close relationship with Fudan. Both institutions are members of the McDonnell International Scholars Academy, and Washington University's summer language program is hosted by Fudan University.

Chen says that through the new fall and spring study-abroad semesters in China, WUSTL can offer classes not available in St. Louis.

Students will be able to pursue different opportunities through the program, whether doing internships, conducting research or just taking classes. Companies

such as Dell and Johnson & Johnson, as well as nongovernmental organizations, have offered to host program students.

Program participants will undergo intensive language training and take a shared class that examines China in a global context. Class topics will change each semester and will examine issues such as China's foreign policy and U.S.-China relations.

Lauren Katz, Arts & Sciences Class of '12, is considering taking part in the program in the fall. She participated in the summer-language program two summers ago and interned with Cabot Corp. in

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Root Cause of Diabetes' Blood Vessel Damage Discovered

by Jim Dryden

Diabetes researchers at the School of Medicine identified a key mechanism that appears to contribute to blood vessel damage in diabetes patients.

Blood vessel problems are a common diabetes complication. Many of the nearly 26 million Americans with the disease face the prospect of amputations, heart attack, stroke and vision loss because of damaged vessels.

Reporting in the *Journal of Biological Chemistry*, university researchers say studies in mice show that the damage appears to involve two enzymes — fatty acid synthase (FAS) and nitric oxide synthase (NOS) — that interact in the cells that line blood vessel walls.

"We already knew that in diabetes there's a defect in the endothelial cells that line the blood vessels," says first author Xiaochao Wei, PhD. "People with diabetes also have depressed levels of fatty acid synthase. But this is the first time we've been able to link those observations together."

A postdoctoral research scholar, Wei works in the lab of Clay F. Semenkovich, MD, the Herbert S. Gasser Professor of Medicine, professor of cell biology and physiology, and chief of the Division of Endocrinology, Metabolism and Lipid Research.

Wei studied mice that had been genetically engineered to make FAS in all of their tissues except the endothelial cells that line blood vessels. These

so-called FASTie mice experienced problems in the vessels that were similar to those seen in animals with diabetes.

"It turns out that there are strong parallels between the complete absence of FAS and the deficiencies in FAS induced by lack of insulin and by insulin resistance," Semenkovich says.

Wei and Semenkovich compared FASTie mice to normal animals, as well as to mice with diabetes. They determined that mice without FAS, and with low levels of FAS, could not make the substance that anchors nitric oxide synthase to the endothelial cells in blood vessels.

"We've known for many years that to have an effect, NOS has to be anchored to the wall of the vessel," Semenkovich says. "Xiaochao discovered that fatty acid synthase preferentially makes a lipid that attaches to NOS, allowing it to hook to the cell membrane and to produce normal, healthy blood vessels."

In the FASTie mice, blood vessels were leaky, and in cases when the vessel was injured, the mice were unable to generate new blood vessel growth.

The actual mechanism involved in binding NOS to the endothelial cells is called palmitoylation. Without FAS, the genetically engineered mice lose NOS palmitoylation and are unable to modify NOS so that it will interact with the endothelial cell membrane. That results in blood vessel problems.

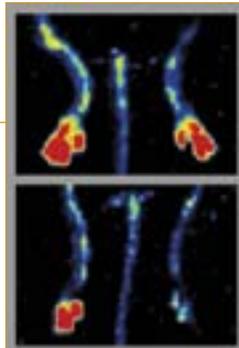
"In animals that don't have fatty acid synthase and normal nitric oxide synthase in endothelial cells, we saw a lot of leaky blood vessels," Semenkovich explains. "The mice were more susceptible to the consequences of infection, and they couldn't repair damage that occurred — problems that also tend to be common in people with diabetes."

In one set of experiments, the researchers interrupted blood flow in the leg of a normal mouse and in a FASTie mouse.

"The control animals regained blood vessel formation promptly," Semenkovich says, "but that did not happen in the animals that were modified to be missing fatty acid synthase."

It's a long way, however, from a mouse to a person, so the researchers next looked at human endothelial cells, and they found a similar mechanism at work there.

"Our findings strongly suggest that if we can use a drug or another enzyme to promote fatty acid synthase activity, specifically in blood vessels, it might be helpful to patients with diabetes," Wei says. "We also have been able to demonstrate that palmitoylation of nitric oxide synthase is impaired in diabetes. If we can find a way to promote the palmitoylation of NOS, even independent of fatty acid synthase, it may be possible to treat some of the vascular complications of diabetes." 🌐



In the study, normal mice (above) restored blood flow, but FASTie mice (below) did not. (Courtesy image)

"Our findings strongly suggest that if we can use a drug or another enzyme to promote fatty acid synthase activity ... it might be helpful to patients with diabetes."

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Shanghai last summer. She says that she loves the city and likes that she is familiar with the area and neighborhood, and, better yet, she would be able to engage in an experience different from her previous ones.

"The courses they are offering are a lot different from what is offered at Washington University," Katz says. "I'm thinking about writing my thesis on consumerism in China, and it would be a

really good way to get first-person research and conduct field studies."

Chen says the goal is to have 50 students in Shanghai at any given time.

"It's a very ambitious plan," she says.

Chen also recognizes that fall is a less popular semester for students to study abroad. "Ten or 15 students the first semester would be wonderful."

Mark Beirn, associate director for overseas programs, says students can use the

program to engage locals in Shanghai and use the city as their classroom.

"Shanghai is the city of a new century," Beirn says. "We are talking the 21st century being the century of China, and Shanghai epitomizes all that is China and all that China hopes to be. Shanghai is a cultural capital; it's an economic capital; and, for the right student, it's a really compelling place to be." 🌐

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IACA Meets in Singapore

by Tami Holder

Washington University's International Advisory Council for Asia (IACA) met January 23–25, 2011, in Singapore. David Conner, AB '74, the IACA chair, served as the local host.

Chancellor Mark S. Wrighton opened the meeting with a presentation called "Progress on Enhancing the Global Leadership of Washington University." Edward S. Macias, the university's provost, delivered a presentation titled "Building Program Excellence to Serve the World's Most Talented Students." James V. Wertsch, associate vice chancellor of international affairs and director of the McDonnell International Scholars Academy, spoke about "The University's Future as a Global Institution."

Chancellor Wrighton also invited several leaders of higher education in Singapore to talk to the IACA. Former Singapore Deputy Prime Minister Tony Tan spoke to council members about "The Role of Universities in the Development of Singapore." President Chorh Chuan Tan of National Singapore University, President Guanng Su of Nanyang Technological University, President Arnoud DeMeyer of Singapore Management University, and Provost Chong Tow Chong of Singapore University of Technology and Design all spoke to the council about their institutions, as well as the global initiatives they are each pursuing.

Michael Sherraden, the founding director of the Center for Social Development and the Benjamin E. Youngdahl Professor for Social Development at Washington University, spoke



Washington University's International Advisory Council for Asia met in Singapore in January 2011. Sixty-three people attended, including 28 council members and spouses. The council is scheduled to meet again in December 2012 in India. (Alwyn Loh)

to the IACA about "Social Innovations in Singapore, Asia and Beyond."

Each of the deans also spoke about partnerships and programs related to building a greater presence both nationally and internationally. The IACA members participated in breakout groups related to these topics. In addition, they explored opportunities, issues and concerns to be aware of as the university pursues growth internationally.

Chancellor Wrighton hosted an alumni dinner at the Asian Civilizations Museum in Singapore for the IACA and delegates from Washington University. Approximately 70 alumni, parents and friends from

Singapore joined the council for the dinner. Chancellor Wrighton spoke about "Washington University and Asia in the 21st Century: An Era of Opportunity."

The IACA, which meets every 18 months, is scheduled to meet again in December 2012 in India.

Composed of alumni, parents and friends, the council helps advise Washington University administrators on issues related to the university's programs and partnerships in Asia. 🌐

Volunteer Spotlight

Jun Zou, PhD '93, and Cheryl Xu, MSBA '94

"My wife [Cheryl Xu] and I learned so much from the great minds at Washington University," Jun Zou says. "We gained a lot of insight, maturity and lifelong friends during our time there, and we have always wanted to give back."

Hoping to foster connections among alumni in Beijing, the couple helped found an Alumni Club there, which Zou chairs. In addition, they created a Yahoo group for alumni in Beijing and helped organize several alumni meetings with Chancellor Mark S. Wrighton.

Also dedicated to promoting the university, Zou and Xu host university visitors to Beijing, help with graduate student recruiting activities, and meet with prospective undergraduate students in China.

"We sincerely hope that through our efforts we can help recruit a few bright students, promote friendships among alumni in China, and build a bridge between the university and the Chinese government and people," Xu says.

Zou is the general manager for information technology and product development in the Beijing office of the Ganges Group, a telecommunications company headquartered in Hong Kong. Xu is UnitedHealth Group's adviser in China. 🌐



Cheryl Xu, MSBA '94, and Jun Zou, PhD '93, are the founders of Washington University's Alumni Club in Beijing. (Courtesy photo)

News Briefs

Fossils in China Shed Light on Emergence of Modern Humans

An international team of researchers, including a biological anthropology professor at Washington University, discovered well-dated human fossils in southern China that markedly changed anthropologists' perceptions of the emergence of modern humans in the eastern Old World.



The discovery of early modern human fossil remains in the Zhirendong (Zhiren Cave) in southern China provides the earliest evidence for the emergence of modern humans in eastern Asia. These fossils are at least 100,000 years old — 60,000 years older than the previously known modern humans in the region.

"These fossils are helping to redefine our perceptions of modern human emergence in eastern Eurasia, and across the Old World more generally," says Erik Trinkaus, PhD, the Mary Tileston Hemenway Professor in Arts & Sciences and professor of biological anthropology.

The Zhirendong fossils contain a mixture of modern and archaic features that contrasts with earlier modern humans in east Africa and southwest Asia. This indicates some degree of human population continuity in Asia with the emergence of modern humans.

These fossils also show that the spread of modern human biology long preceded the cultural and technological innovations of the Upper Paleolithic. In addition, they indicate that early modern humans co-existed for many tens of millennia with late archaic humans further north and west across Eurasia.



Early modern human fossil remains, discovered in the Zhirendong in southern China, provide the earliest evidence for the emergence of modern humans in eastern Asia. The fossils are at least 100,000 years old. (IVPP)

Seng Tee Lee Gift Supports McDonnell Academy

Through his position as director of the Lee Foundation, Seng Tee Lee has provided generous support to Washington University's McDonnell International Scholars Academy. His most recent gift established the Lee Foundation Fellowship within the McDonnell Academy. The fellowship will support an alumna or alumnus of the National University of Singapore who wants to pursue a graduate or professional degree at Washington University.

Another of Lee's gifts created the S. T. Lee Endowed Lectureship in 2009, which the McDonnell Academy hosts.

In recognition of his generosity and public service, he received an honorary degree from Washington University during a convocation ceremony in Singapore in June 2008.

Lee serves as director of the Lee Group of Companies, a Singapore-based conglomerate of firms in industries that include rubber, pineapple, banking and investments.



In recognition of his generosity and public service, Seng Tee Lee (center) received an honorary degree from Washington University in 2008. He recently established the Lee Foundation Fellowship within the McDonnell Academy. (Courtesy photo)

Performance Blends Japanese and American Dance

During the spring 2011 semester, dance artist Julie Alexander, BSBA '02, presented an informal performance at the university titled "Weaving Traditional Japanese Dance and American Postmodern Dance: Excerpts from *Tyler Tyler*."

Alexander was active in the Performing Arts Department in Arts & Sciences during her time at the university. Originally from Houston, she is now based in New York and has been performing locally, nationally and internationally for the past eight years. She has danced with Beth Gill, Miguel Gutierrez, Trajal Harrell, Donna Uchizono and Antonietta Vicario, among others. Recently, she finished touring with Yasuko Yokoshi's *Tyler Tyler*. Alexander is currently dancing with Anna Sperber, whose new work will premiere at The Kitchen in New York in October 2011.

New Faculty Members Join University

Minjung Kyung, PhD, joined the Department of Mathematics and the Center for Applied Statistics, both in Arts & Sciences, as assistant professor. Kyung's research interests include Bayesian statistics, spatial statistics, nonparametric regression and nonparametric Bayesian statistics.

Yuko Miki, PhD, joined the Department of History in Arts & Sciences as assistant professor. Her area of specialization is the history of the African diaspora and Latin America.

'International Experience Class' Travels to Hong Kong

The Department of Energy, Environmental & Chemical Engineering (EECE) held the 2011 undergraduate International Experience Class in Hong Kong earlier this summer. The EECE International Experience Program gives undergraduate students the opportunity to broaden their education by learning about global energy and environmental problems and solutions. This year, the students studied solar energy technologies.

The McDonnell International Scholars Academy — a global network and international incubator for new ideas in research and education — coordinates the program. Including Washington University, the academy consists of 28 premier universities from around the world. Working together, the universities promote global connectedness, educate future world leaders, and address global challenges in areas such as energy, the environment, public health and cultural understanding.

The International Experience is a three-credit elective course that spans 13 months. EECE faculty members guide students through pre-program seminars in winter and spring prior to the summer experience. Each student is responsible for a seminar presentation to Washington University and partner-university students and faculty on a project related to energy and the environment. Students also visit local industries, regulatory agencies and testing laboratories. Upon return to St. Louis, students present their research seminars and submit a detailed research report. 🌐

Glimpses

The 2011 Lunar New Year Festival at the university celebrated the Year of the Rabbit. The annual festival is run by students to promote awareness of the different aspects of Asian culture. (Jerry Naunheim Jr.)



Help Recruit Talented Students Through the Alumni and Parents Admission Program

Throughout the world, many university alumni (undergraduate) and parents of current undergraduate students are ambassadors for the university as they help recruit, interview and enroll talented students from their areas.

Working as part of the Alumni and Parents Admission Program (APAP), they offer interviews to applicants (students), help staff College Fairs, refer prospective students to the Office of Undergraduate Admissions, and contact and respond to questions from parents of admitted/enrolling students. Some volunteers also host Summer Send-off parties for incoming freshmen in their areas prior to the start of the fall semester at the university.

In addition to APAP volunteers in Hong Kong, Singapore, Taipei and Tokyo, volunteers can also be found in the Asian nations of South Korea, Turkey, India, Malaysia, People's Republic of China and Thailand.

In Asia, the committee chairs are:

Hong Kong

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Jamie Lee, BU05
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Singapore

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APAP Volunteers Needed

If you are living in Asia, are an undergraduate alum of Washington University, or a parent of a current university undergraduate student, and you can help recruit, interview and enroll prospective students from your area, the APAP program would like to hear from you. More volunteers are needed, and in the program, you can enjoy meeting prospective students and their parents as you help the university attract outstanding applicants.

If you are interested in becoming involved in APAP efforts, please contact the APAP office at apap@wustl.edu or 1-314-935-4826.

Contacts

Your Washington University Contacts

Washington University **Alumni Clubs** offer alumni and parents of current and former students a way to stay connected with the university. For more information on the clubs in Asia, visit <http://aisweb.wustl.edu/alumni/internationalrelations.nsf> or contact:

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The **Alumni and Parents Admission Program (APAP)** involves alumni and parents of undergraduates in recruiting, selecting and enrolling students at Washington University. APAP members interview applicants, staff college fairs and host receptions for admitted students. For information, contact:

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Alumni, parents and friends of the university often help identify students who would benefit from a Washington University education. Refer names and addresses of talented prospective students to:

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