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**Americans, visitors share 'best practices'**

By Nancy Belt

Two faculty members from Fudan University in Shanghai, China, are visiting the John M. Olin School of Business this semester, becoming the first Emerson Electric Fellows. A project designed to further an exchange of best practices in business education, Future Fellows in this project, supported by Emerson Electric Co., will come from Tsinghua University in Beijing, as well as Fudan University.

Collaborative agreements provide a rare visiting faculty from these Chinese institutions to attend classes at the Olin School during a semester, in which Olin and visiting faculty can share expertise and teaching methods that could be used at their institutions, and to take part in research. To reciprocate, an executive education group from the business school will visit these universities in China.

From Fudan University's School of Management are Zhai Li, lecturer, and Su Yong, associate professor and director of the Master of Business Administration program at Fudan University. Zhai, who teaches "Project Management," "Advanced Business Management," and other courses, said she might attend marketing courses, which would broaden her expertise, and "The Hatchery" entrepreneurship program.

"Students at Fudan are very interested in entrepreneurship, and we're planning to offer a course in it," she said.

Su, who teaches "Management," "Business Ethics," "Consumer Behavior" and other courses, is likely to attend classes in ethical issues and brand management. "I also want to learn about managing a business school," he said, both said the students here study hard and are assertive and aggressive, and, in their first week here — their first visit to the United States, they've been impressed with St. Louis. "Here it is so quiet, and the air is so fresh," said Zhai.

"And the city is beautiful," Su added.

"We're delighted to have agreements with these outstanding institutions and delighted to have Professors Zhai and Su at Olin," said Karen L. Wooley, Ph.D., assistant dean of the business school. "We hope that this program of intellectual exchange between Olin and Fudan and Tsinghua universities will build durable bridges of friendship and understanding between our communities."

Researchers uncover how laughing gas exerts its anesthetic effects

By Tony Fitzpatrick

Chemists at Washington University have created synthetic polymer particles that are as safe as dumplings. They're called knedels ( knedel-N), after a popular Polish dumpling filled either with meat or synthetic polymer particles that could be used at their own institutions, and to take part in research. To reciprocate, an executive education group from the United Nations will visit Fudan University.

Fudan University's School of Management is developing knedels for both oral and injected delivery.

"They're called knedels (k-NED-ls), after a popular Polish dumpling filled either with meat or synthetic polymer particles that could be used at their own institutions, and to take part in research. To reciprocate, an executive education group from the United Nations will visit Fudan University."

"They're like golf ball molecules in this form," Wooley said. "This advance moves us along in our goal of making knedels potential drug and gene-carrying systems. It makes the particle a lot more versatile and the rubbery core should allow a higher loading capacity. We've gotten lots of interest in the knedels for their potential — their novelty — and their name."

Wooley and her colleagues have recently been focusing on the knedels' water-soluble shell that allows them to bind DNA to its surface. This in turn causes small aggregates to form that protect the genetic material from being digested by enzymes. The chemists charge the shell positively so the knedel attracts DNA, which has a negative charge. Thus, the shell itself can play a key role in drug delivery. Wooley and her group are developing knedels to be used for both oral and injected medication.

Knedels are variations and improvements on a class of polymers — chain-like structures of repeating compound assemblies — called micelles. There has been lots of interest in this decade in micelles for drug delivery, but they have a major drawback for this purpose. They are dynamic and unstable. If they are diluted or subjected to force in a system, they tend to fall apart.

Knedels, on the other hand, assemble and behave much like the protein chains of amino acids — the chemical units that are the building blocks of proteins.

**Cute as dumplings**

By Tony Fitzpatrick

Chemists at Washington University have created synthetic polymer particles that are as safe as dumplings. They're called knedels ( knedel-N), after a popular Polish dumpling filled either with meat or synthetic polymer particles that could be used at their own institutions, and to take part in research. To reciprocate, an executive education group from the United Nations will visit Fudan University. Zhai Li (far left) and Su Yong (far right), faculty from Fudan University in Shanghai, China, get acquainted with first-year MBA students Rebecca Gray from Washington, D.C., and Dennis Shirokov from Russia. They're called knedels (k-NED-ls), after a popular Polish dumpling filled either with meat or synthetic polymer particles that could be used at their own institutions, and to take part in research. To reciprocate, an executive education group from the United Nations will visit Fudan University.

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By Martha Everett

Lisa Marcus was sitting at her desk in the Financial Planning Office when she noticed a swelling at the base of her neck. Thirteen days later, she was diagnosed with non-Hodgkin's lymphoma, an incurable form of cancer.

"My diagnosis came out of the blue," Marcus said of the news she received in December 1996. "I needed information, and I needed information now."

That's where the United Way came in. The United Way helps fund the American Cancer Society (ACS), the organization to which Marcus turned. The ACS provided Marcus with informational pamphlets on her disease. It provided her with free nutritional supplements, something Marcus discovered through her reading was essential for cancer patients. And it provided her with a baseball cap to wear when she lost her hair during treatment.

Marcus shared her story at the United Way's annual kick-off breakfast at Whittemore House Thursday, Sept. 3. The story brought to life this year's campaign slogan: "The best way to care for someone you know."

"Most of us go through life not expecting anything horrendous to happen to us or those we care about," Marcus said. "Well, I can tell you it does happen to us. And it's really good to know that those agencies that we need to be there for us at that time are there and funded through the United Way."

Marcus is one of thousands of people helped each year by the United Way of Greater St. Louis. In fact, one in three people in the area is helped by a United Way-supported agency. More than 50 cents of every dollar donated to the United Way of Greater St. Louis goes directly to 140 health and human service agencies and programs in the city of St. Louis and the 10 surrounding counties in Missouri and Illinois.

This year's United Way campaign goal is $375,000 — the highest yet. It's a tall order for a seven-week campaign.

Linda Marcus discusses her personal experience with the United Way at the kick-off breakfast for the University's United Way Campaign at Whittemore House Thursday, Sept. 3.

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Cooperative educational efforts reaffirm the University's pledge to promote educational opportunity on campus but throughout the St. Louis area. AGC President Alan Jenkins said, "This course is part of an ongoing effort by the AGC of St. Louis to reach out and assist firms, especially emerging minority- and women-owned firms, in building a strong St. Louis construction industry." The course has a long history of partnerships with the AGC working to assist minority contractors. In 1972, Washington University and the AGC, together with Model City Minority Contractor Development Corp., sponsored a series of seminars for minority contractors on construction cost estimating and contract documents. The following year, the three entities worked with the Minority Contractors Assistance Program to present a one-day workshop for minority contractors called "Together We Can." This course is one of many new initiatives that the University is undertaking to increase minority and women participation in their many construction activities on both the Hilltop and Medical campuses," said Richard A. Roloff, executive vice chancellor.

Those initiatives are part of a program launched in February to foster minority and women participation in construction projects on campus. Part of the program reaffirms a commitment to further the University's mission as an educational institution by continuing to work with the AGC and other organizations and institutions that support training programs to increase the number of women and minority participants in the construction industry in St. Louis.

The course is a fitting way for the University to help achieve the program's goals, said Ralph H. Thaman, director of Facilities Planning and Management. "Our mission is education," Thaman said. "This is an opportunity for us to do what we best to give emerging business people an opportunity to learn about how to be in business and be successful."
Scientists discover how laughing gas exerts its anesthetic effects

BY Jim Davis

Laughing gas — nitrous oxide — is one of the least understood general anesthetics. Discovered in the late 1700s, it has been widely used in medicine since the 1840s. But scientists have never been sure how it works.

New School of Medicine researchers believe they have found how nitrous oxide exerts its anesthetic effects. They also report how nitrous oxide exerts its effects on the brain.

"We think we've found implications for the use of nitrous oxide in dentistry," said Jeffrey Gordon, M.D., professor of molecular biology, who has received a five-year, $1.45 million grant from the National Institutes of Health and the McDonnell Center for the Molecular and Neurobiology.

"Anesthetics are trying to understand some of these things," said Gordon. "We're working on how nitrous oxide exerts its effects on the brain." Gordon and his colleague, Russell M. K. Russell, are working on a project to understand how nitrous oxide affects the brain.

Enzymes focus of Mathews’ grant

Scott Mathews, Ph.D., professor of biochemistry and molecular biology of cell biology, recently received a four-year, $1 million grant from the National Institutes of General Medical Sciences to study the reactions of certain enzymes.

"The structures of these enzymes are known, so now we are trying to understand some of their unique properties," Mathews said.

"Enzymes catalyze the chemical reactions that are essential to life," he said. "Understanding these reactions can help us learn more about the cell."

Mathews studies a yeast enzyme that oxidizes nitro- gen-containing compounds, such as amines. Similar enzymes — amine oxidases — occur naturally in bacteria from humans. They are unusual because they have not been found in the yeast's building blocks, the amino acids tryptophan and methionine. They have the topoisomerase activity of oxidizing amines.

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Mathews will use X-ray diffraction techniques to study the reaction sites of certain enzymes, correlating them with alterations in the enzyme's oxidative ability. The reactions of the enzyme are essential to the enzyme's function and uncover their specific roles.

Mathews also studies an enzyme called trimethylamine dehydrogenase, which can cause the soil bacteria Methylobacterium to grow on trimethylamine, a by-product of rotting vegetation. Analysis of the enzyme reveals how the enzyme removes electrons from trimethylamine using a catalytic site called a flavin. The flavin shuttles the electrons to another site on the enzyme that eliminates a cluster of water and sulfur.

The electrons then pass to a second protein, called the electron transfer flavoprotein. Using X-ray crystallography, Mathews hopes to uncover subtle changes in the structure of the flavin-dependent product of rotting vegetation.

The research will determine how M. tuberculosis causes tuberculosis kills millions of people each year and may be a major threat to patients with AIDS.

"The bacteria that causes tuberculosis kills millions of people each year and may be a major threat to patients with AIDS."

Russell's existing studies of Mycobacterium avium have led to a clearer understanding of the

Bacterium avoids immune system's watchful eye

Russell studies most deadly infectious diseases

David G. Russell, Ph.D., professor of molecular microbiology, has received a five-year, $1.45 million grant from the National Institute of Allergy and Infectious Diseases. The grant will enable Russell to help studies of the most deadly infectious organisms. The bacterium that causes tuberculosis kills millions of people each year and may be a major threat to patients with AIDS.

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The world's most famous Cajun band BeauSoleil with Michael Doucet will perform two shows Sept. 25 and 26 to open Edison Theatre's 1998-99 OVATIONS! Series season.
Sports Section

Football Bears win
Washington University's defense put the scoreboard on ice Saturday at Hulman Stadium as the team's 5-0 shutout of Saint Louis 3-1 in the nation's 11th season-opening triumph. WU's defense allowed the Billikens' offense four first downs and returned an interception for a touchdown to put the Bears on the scoreboard in the first half. WU's defense forced five turnovers and scored two touchdowns.

Volleyball team vs. Ohio State
The Bears defeated the Buckeyes 3-1 on Friday night at the Field House. The Bears' offense tallied 223 yards and a pair of touchdowns, including a 38-yard touchdown pass by quarterback Lake. WU's defense recorded six tackles for loss and three sacks.

Frontman vs. Wittenberg
The Bears' football team defeated the Ephs 6-0 on Saturday at Schozl Field. The Bears' offense scored on two touchdown passes and a field goal, while the defense allowed just 100 yards of total offense.

Men's soccer win
The Bears defeated the Ephs 2-1 in overtime on Saturday at Schozl Field. The Bears' offense scored on two goals from senior Tim Julien, while the defense allowed just one goal.

Women's soccer split
The Bears defeated the Ephs 2-1 on Friday night at Schozl Field. The Bears' offense scored on two goals from sophomore Erin Waller, while the defense allowed just one goal.

Documentary film premiere
Barbara Kopple, one of the most important documentary filmmakers of our time, will deliver a lecture for the Assembly Series titled "The Art of the Documentary Film." The lecture will be held in Tietjens Auditorium at 4 p.m. on Friday, Sept. 11. Kopple will also present her documentary film "The Battle of smartphone," which explores the impact of smartphones on our society.

Music
Sunday, Sept. 13
7:30 p.m. Concert, Percival Pitts with Don Connette. Cost: $8.00 for students, $10.00 for seniors. Tietjens Auditorium.

Monday, Sept. 14
7:30 p.m. Piano recital and poetry reading. Fourth annual Unlearning Insecurity Institute on "Conversations with Dare Schuman." Tietjens Auditorium.

Tuesday, Sept. 15

Wednesday, Sept. 16

Thursday, Sept. 17

Friday, Sept. 18

Saturday, Sept. 19
Karen L. Wooley, Ph.D., (right) assistant professor of chemistry, has made new breakthroughs in the development of microscopic particles called "knedels," which could have important applications in drug delivery and cancer treatment.

**Knedels**

**Particle promising as new drug delivery system**

A combined education and research approach at the University of Missouri-St. Louis (UMSL) is taking me to Greece at the end of the month. The insect is named after a Greek term for "kneading." Knedels incorporate degradable polymers into the knedel structure. Rice and graduate students Jennifer Woschegg and Mic Wong have developed new degradable polymers that can time to fall apart in water in anywhere from a few minutes to a few weeks. Adding this feature to a drug-bearing knedel would give the particle time-release capabilities. Wooley also is working on modifications to the knedel's shell. She wants to make it flexible so that when it comes into contact with proteins, the shell won't cause proteins to stick to and denature, which is an alteration of molecular structure. As for the future, after Wooley and her group constructed the polymer particles, they tried to see them with a standard electron microscope, but the particles were too small. They turned to University colleague and Polish native Tomasz Kowalewski, Ph.D., a professor of chemistry who is an expert in atomic force microscopy (AFM). A new, powerful microscope that can visualize nature's tiniest objects. Kowalewski operates an AFM at the University. "When Wooley first showed us how it looks like knedels. You must call them that," Kowalewski said. "And that's how they got their name," Wooley said.

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**Lectures explore Asian diasporas**

**Experiences of the Japanese in America, Chinese in Latin America and Koreans in Japan are among topics to be discussed in a series of six lectures on "East Asian Diasporas" being sponsored this fall by the Center for East Asian Studies.**

A combined education and research program of Washington University and the University of Missouri-St. Louis (UMSL), the Joint Center sponsors an annual colloquium series exploring a current issue in East Asian studies. There will be three lectures here and three at UMSL.

The first lecture — "Hyphenated Identities: The Japanese-American" by Harry L. L. Kitanow, professor, School of Public Policy and Social Research, University of California, Los Angeles — will be presented at 4 p.m. Thursday, Sept. 10, in Room 333, Social Sciences Building on the UMSL campus.

As part of this series this semester include "The East Asian Diaspora in the Americas" by Roger Daniels, University of Cincinnati, Oct. 8 at Washington University, and "Koreans in Japan and in the Americas" by George A. Devis, University of California at Berkeley, Nov. 12 at UMSL.

Lectures next semester will cover religion in Asian-American culture and trends in Asian-American literature and the Chinese diaspora in Latin America. For room locations or other information, call 93-4567.

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**United Way**

**University sets $375,000 campaign goal for 1998**

From page 1

United Way

- Campaigns for Washington University are taking place throughout the St. Louis area. The university has set a goal of raising $375,000 for the 1998 campaign, which runs from Sept. 1 through June 30.

- The campaign is sponsored by the University's Office of Student Life, which is responsible for coordinating all fundraising activities on campus.

- The campaign will include a variety of fundraising methods, such as bake sales, raffles, and other events.

- The campaign will be led by a team of volunteers, including student leaders and faculty members.

- The campaign will focus on raising money for local organizations that help people in need, such as food banks, shelters, and other organizations.

- The campaign will be promoted through a variety of channels, including campus newspapers, e-mail, and social media.

- The campaign will be evaluated through a series of reports and assessments, which will be used to improve future campaigns.

- The campaign will be supported by the university administration, which has committed to providing resources and support for the campaign.

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Mental Health Services (MHS) provides a range of services to manage the mental health concerns of students and employees. MHS offers individual therapy, group therapy, and consultation services to address a variety of issues, including anxiety, depression, and stress. They also provide substance use disorder treatment and psychological testing services.

In addition, MHS offers a variety of educational workshops and seminars on mental health topics throughout the academic year. These workshops cover topics such as stress management, coping with depression, and understanding anxiety disorders.

MHS is committed to creating a safe and supportive environment for all members of the campus community. They promote self-care and resilience and encourage students and employees to seek help when needed.

Mental Health Services (MHS) is located in the Student Health Services building, 4th floor, room 400, 6380 South Kingshighway, St. Louis, MO 63110-4899. The phone number for MHS is 314-935-5500.

Hands-on experience: Joshua Karch, a senior engineering major, tested drives of four laptop computers donated to the Office of Disabled Student Services by IBM Corp. IBM executives David J. Filipinack, who received a master of business administration degree from the University in 1972, and Jean Morrell were on hand for the Sept. 2 Whittemore House event marking the donation. Karch was the University's first participant in IBM's Diversity Campus Executive Program, which aims to offer high-tech engineering opportunities to students with disabilities.

Elizabeth Williamson, former social work admissions director

September 10, 1998
For 32 years, a healing presence on campus

Judy Richardson, R.N., has served the University through three chancellors and four health center directors

BY DAVID MOESNER

Judy Richardson was hired as a staff nurse in 1966 by Missouri Baptist University in St. Louis. Richardson has been dispensing care for patients for 32 years. She has incredible experience in health care.

Richardson was raised by her stepbrother's girlfriend, a nurse. Richardson said the biggest influence in her life was her grandmother. It was the middle of the night when the phone rang. She went to her stepbrother's girlfriend to help. Richardson has always led our office, consistently indicating 98 percent student satisfaction. That clinic is now chock full of test tubes and medicine bottles, said Carroll, assistant vice chancellor for University in St. Louis.

Richardson also is an avid garden

Richardson is a collector with a library that has bulged to 2,000 volumes. She scours estate sales and books for the black of Willa Cather and Charles Dickens. Richardson also is an avid gardener.

Richardson also knows how to make the best of things. She once came home from a trip to Europe and realized she had missed a parting gift. The gift was a piece of jewelry. Richardson said the biggest influence in her life was her grandmother. It was the middle of the night when the phone rang. She went to her stepbrother's girlfriend to help. Richardson has always led our office, consistently indicating 98 percent student satisfaction. That clinic is now chock full of test tubes and medicine bottles, said Carroll, assistant vice chancellor for University in St. Louis.

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