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Record



Washington University in St. Louis

April 23, 2009

record.wustl.edu

Brookings Institution and WUSTL form academic partnership

The Brookings Institution and Washington University will begin offering joint programs, including internships, lectures and other educational activities, the institutions announced April 21.

The Olin Business School also will lead management of Brookings' executive education activities, effective July 1.

The new partnership between Brookings and WUSTL could be considered a reunion of old friends. Turn-of-the-last-century St. Louis businessman Robert S. Brookings both founded the Washington, D.C.-based think tank and, as leader of the University's governing board for 33 years, laid the foundation for the University to become the world-renowned institution it is today.

After helping to found the Institute for Government Research (IGR), the forerunner of the Brookings Institution, in 1916, Brookings established the Graduate School

of Economics and Government in Washington, D.C., as part of the University in 1923. It became independent of WUSTL in 1924, and, in 1927, was combined with IGR and a third organization to become the Brookings Institution.

A key element of the renewed partnership in educational programs is that Olin will lead management of the Brookings Center for Executive Education beginning July 1. Known for its exceptional executive education for mid- and senior-level organizational leaders in the United States and abroad, the school will bring its approach to the Brookings Center for Executive Education, which offers courses covering critical global issues, U.S. policy-making and public leadership for government and corporate leaders.

Jackson A. Nickerson, Ph.D., the Frahm Family Professor of Organization and Stra-

tegy and a nonresident senior fellow at Brookings, will serve as director of the new executive education partnership.

"The Brookings Institution is a premier organization, and we at the University value the many opportunities that will come to our students and faculty through the development of this partnership," Chancellor Mark S. Wrighton said.

"Our historic ties are the foundation for significant educational and scholarly programs that will enhance the mission of both Brookings and Washington University. We are excited about the potential this partnership represents and will build on the important area of advanced education through our work with the Brookings Center for Executive Education," Wrighton said.

Wrighton said that the partnership with Brookings is a vital component of the development of Washington, D.C., programs by

the University, an initiative led by Kent D. Syverud, J.D., associate vice chancellor for Washington, D.C., programs, dean of the School of Law and the Ethan A.H. Shepley University Professor.

Wrighton said that there are many areas of possible collaboration between WUSTL and Brookings, such as a longstanding Washington, D.C., program at the School of Law, intense interest among students to have internships in Washington, D.C., the development of the McDonnell International Scholars Academy and Gephardt Institute for Public Service, and the growth of the University's programs in energy and environment, public health and health policy.

Under the new agreement, WUSTL and Brookings also will participate in a scholar-in-residence exchange program, and undergraduate and graduate students will have

See **Partnership**, Page 7

New pump effectively backs up failing hearts

By GWEN ERICSON

Patients with severe heart failure can be bridged to eventual transplant by a new, smaller and lighter implantable heart pump, according to a new study of the device.

Results of this third-generation heart assist device were reported at the annual meeting of the American College of Cardiology March 30.

The device, called a left ventricular assist device (LVAD), is the latest generation of heart assist devices. The LVAD was tested at five main sites: the School of Medicine, the University of Minnesota, Mount Sinai School of Medicine, Inova Fairfax Hospital and the University of Pittsburgh.

"LVADs have allowed us to support patients until they can receive a heart transplant, so they are called a bridge to transplant," said Gregory Ewald, M.D., associate professor of medicine and director of the Section of Heart Failure and Cardiac Transplantation and medical director of the Total Artificial Heart Program.

"For patients whose hearts are failing and are awaiting transplantation, these devices can be lifesavers. Washington University is the only medical center in the region where patients can receive these devices at this time," he said.

In addition to Ewald, lead investigators in the trial included Nader Moazami, M.D., associate professor of surgery and surgical director of the Cardiac Transplantation and Total Artificial Heart Programs at WUSTL, and Andrew Boyle, M.D., associate professor of medicine at the University of Minnesota and medical director of Heart Failure, Cardiac Transplantation and Mechanical Circulatory Support.

An LVAD is implanted inside the chest cavity near the heart and is connected to the heart's left ventricle (pumping chamber). It assists the patient's weakened or damaged ventricle in pumping blood through the body. By restoring a normal blood flow, the device improves patients' health. Because it is powered by portable

See **Pump**, Page 7



A joyful occasion The mood was festive outside the William H. and Elizabeth Gray Danforth University Center April 17 following the ribbon-cutting ceremony at the building's dedication. Pictured in front of the north arcade are the presenters at the ceremony: (from left) Brittany Perez, undergraduate student representative; Robert L. Virgil, Ph.D., trustee emeritus and chair of the Center's campaign committee; James E. McLeod, vice chancellor for students and dean of the College of Arts & Sciences; David W. Kemper, chair of the Board of Trustees; William H. Danforth, chancellor emeritus; Ann Rubenstein Tisch, trustee and alumna; Chancellor Mark S. Wrighton; and Charles Vos, graduate student representative. After the ribbon-cutting, guests enjoyed a reception and tours of the Center, which serves as the hub of student activity on the Danforth Campus.

Three elected to American Academy of Arts and Sciences

Three WUSTL professors have been elected fellows of the American Academy of Arts and Sciences.

The new fellows are Ursula Goodenough, Ph.D., professor of biology in Arts & Sciences; James V. Wertsch, Ph.D., the Marshall S. Snow Professor in Arts & Sciences and director of the McDonnell International Scholars Academy; and Wayne Yokoyama, M.D., the Sam J. Levin and Audrey Loew Levin Chair for Research on Arthritis, professor of medicine and director of the Center for Arthritis and Related Disorders.

The three are among 210 American men and women elected as fellows by the academy, an organization formed in 1870 to cultivate the arts and

sciences and to recognize leadership in scholarship, business, the arts and public affairs.

"It is a tremendous honor to have three outstanding Washington University faculty recognized by the American Academy of Arts and Sciences," said Chancellor Mark S. Wrighton. "Professors Goodenough, Wertsch and Yokoyama all are distinguished scholars in their respective fields, and this recognition is richly deserved. The diversity of



Goodenough



Wertsch



Yokoyama

their individual accomplishments indicates the good fortune we have enjoyed in strengthening our academic reputation as one of the premier universities in America."

The academy's membership of more than 4,600 includes more than 250 Nobel laureates and 60 Pulitzer Prize winners.

See **Fellows**, Page 6

Chancellor to deliver 'State of the University' address

'Our current challenges are great, but we also have significant opportunities'

Chancellor Mark S. Wrighton will give a "State of the University" address at 8:30 a.m. Thursday, April 23, in Edison Theatre.

Wrighton will be joined by Henry S. Webber, executive vice chancellor for administration; Barbara A. Feiner, vice chancellor for finance and chief financial officer; and Ann B. Prenatt, vice chancellor for human resources. After the speech, all four will be available for questions from the audience.

For those unable to attend, the presentation will be broadcast live via a link on the University's home

page at wustl.edu. It also will be recorded and available online after the presentation at wustl.edu.

See **Address**, Page 2

Benjamin Edwards, trustee, dies at 77

As the Record went to press, we learned of the passing of Benjamin Edwards III, trustee emeritus and former CEO of A.G. Edwards Inc., April 20 from prostate cancer. He was 77. An upcoming Record will include Edwards' obituary.

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Address

Message outlines goals and initiatives

— from Page 1

Deans of individual schools also will hold similar forums to communicate with school faculty and staff and address school-specific issues.

Below is the text of an e-mail sent to the Washington University community April 14 outlining the Chancellor's goals and initiatives.

To the Washington University community,

The financial situation for many individuals and organizations has deteriorated significantly since September of 2008, and the speed and depth of the downturn is an unprecedented experience for most of us. I remain confident about Washington University's long-term financial well-being. However, we will most likely face significant financial problems in the next several years. On Nov. 19, 2008, I communicated to you about steps being taken then to address the economic challenges. I write again now to convey what has been done to prepare for the next fiscal year, FY10, that begins on July 1, 2009, and what we must do in the year ahead. I will also discuss aspects of our long-range planning process.

We all understand that the rise in unemployment is hurting many people, and that the business environment has been extremely challenging. Despite the March upturn in the stock market, the estimated value of the University endowment, as of the end of March 2009, is at least 25 percent below the value on July 1, 2008. We are not alone in this magnitude of decline, and we understand that the value of the invested assets of many other universities, individuals, foundations and cultural institutions across the country is similarly depressed.

During this time of continuing constraint, it is important to reaffirm the basic principles that guide our decision-making. First, we must sustain our commitment to excellence in teaching, original scholarship and service to society. Our students and faculty are vital to our future success and must be supported.

Each of our enrolled students has exceptional potential. We must ensure that all of our students are able to complete their degree programs, even if their families suffer a financial setback.

Second, the University has benefited enormously from a talented and dedicated staff, and the University must reciprocate by supporting our colleagues who bring enormous benefit to our faculty and students. I know the value of being employed at a great institution like Washington University: Working here provides a source of income and a source of pride.

As chancellor, I pledge that our leadership team will do its very best to support our entire community and make every effort to minimize reductions in personnel. Unfortunately, at this point, it is not possible to predict the depth and longevity of the current financial downturn. In order to minimize reduction in employment, we will strive to improve efficiency, reduce non-compensation administrative expenses and secure new sources of revenue.

Our current challenges are great, but we also have significant opportunities to improve the University. Indeed, the University has just completed a comprehensive planning process called Plan for Excellence that was started in early 2006. Each of our schools and a number of other entities undertook careful planning and identified ambitious objectives for the next 10 years, with the overall aim of enhancing the quality and impact of the University. The Plan

for Excellence was overseen by a Steering Committee of Trustees, chaired by John F. McDonnell, a vice chair of the Board of Trustees. National Council members, faculty, staff and students have played a role in developing our plans.

The Board of Trustees met in March of 2009 to review and discuss objectives stemming from the Plan for Excellence effort. The Board embraced five broad priorities for the next 10 years: (1) strengthen diversity and improve gender balance and inclusiveness in all segments of the University community; (2) continue to strengthen the undergraduate program; (3) build uniformity of excellence in graduate and professional degree programs; (4) continue to invest in areas where we have realized global leadership, especially in medicine and social work, and take advantage of these strengths to enhance the University's quality, impact and visibility in other areas; and (5) enhance the financial resources of the University, with special emphasis on financial aid for students at all levels. These five priorities will be additional guides to our decision-making and efforts to secure resources for the future.

Realization of the objectives from our Plan for Excellence will contribute to the future growth in quality and impact of Washington University. All schools, the libraries and leaders of student affairs have exciting opportunities for improvement, and we are anxious to pursue them. Interdisciplinary themes of importance involving all schools also emerged from the planning. Examples of University-wide initiatives include: the Institute for Public Health; education and research related to energy, environment and sustainability; the Gephardt Institute for Public Service; the Skandalaris Center for Entrepreneurial Studies; the McDonnell International Scholars Academy; and the Friedman Center for Aging.

Our planning also affirmed our mission in the St. Louis community, including contributing to improving public education, enhancing community health and creating new jobs. Thus, while cognizant of the current constraints, we will remain committed to pursuing leading initiatives that have been developed from our three-year planning process. These initiatives will be developed

"We have to manage the present with an eye to the future, employing tactics to deal with our current challenges that do not compromise our ability to thrive later."

MARK S. WRIGHTON

at a pace consistent with the availability of funds.

The current situation will require us to reduce expenditures in some areas while we make significant investments in others. For example, we have made a commitment to expand our investment in alumni and development programs to assist in sustaining, if not expanding, philanthropic support for key initiatives, including financial aid for students. This reflects our commitment to support priorities that strengthen the University.

At its planning meeting, the Board of Trustees set the overarching goal for Washington University for the next 10 years to be: Enhance Our Global Leadership Today to Benefit the World Tomorrow. As we make our plans for the immediate future, we will be mindful of this goal, our five top priorities, exciting initiatives and our fundamental principles. As I communicated last November, we have to manage the present with an eye to the future, employing tactics to deal



Model of mentoring The Graduate Student Senate (GSS) in Arts & Sciences held its 10th annual Outstanding Faculty Mentor awards ceremony and reception April 15 at the Danforth University Center. Receiving the awards for outstanding mentoring are (from left): Wayne Fields, Ph.D., the Lynne Cooper Harvey Distinguished Professor of English and American culture studies; Stephanie Kirk, Ph.D., assistant professor of Spanish, of women, gender and sexuality studies, and of comparative literature; James C. Morley, Ph.D., associate professor of economics; J. Dewey Holten, Ph.D., professor of chemistry; Angela L. Miller, Ph.D., professor of art history and archaeology, of comparative literature, of American culture studies, and of women, gender and sexuality studies; and James F. Spriggs, Ph.D., professor of political science. Not pictured is Mona Lena Krook, Ph.D., assistant professor of political science and of women, gender and sexuality studies. The awards are based on nominations by graduate students and designed to honor faculty members whose dedication to graduate students and commitment to excellence in graduate training have made a significant contribution to the quality of life and professional development of graduate students in Arts & Sciences. A list of 13 faculty receiving special recognition is on the GSS Web site at artsci.wustl.edu/~gss/mentor_awards/winners2009.html.

with our current challenges that do not compromise our ability to thrive later.

Let me now turn to the fiscal problems before us. The scale of our financial problem is large: a \$20 million to \$25 million annual deficit for the Danforth Campus alone in FY11. Currently, the School of Medicine is not experiencing the same fiscal strains because medicine is less dependent on endowment and tuition. Fortunately, both clinical revenue and research revenue, the two largest sources of revenue for medicine, are strong. However, in medicine, we know that the federal stimulus package is only for two years, and clinical revenue is likely to be more constrained in the near future. Thus, we must also plan for financial strains in medicine.

through difficult tactics to reduce the growth in expenses. Compensation across the entire University has been held nearly flat, with no "merit" increase for most faculty and staff.

We estimate that we have saved about \$20 million by not having a significant increase in compensation in the coming year. In addition to holding down compensation expenses, areas in the Central Fiscal Unit have reduced non-compensation expenses by 2 percent to 5 percent, saving another \$2 million.

We have also truncated the South 40 redevelopment project and have postponed indefinitely the renovation of Mallinckrodt Center. The seven schools of the University have also implemented cost-saving measures that have contributed to our ability to have a break-even budget for FY10. I am grateful to all who have been involved in the planning process and for the understanding and collegiality that has prevailed as constraints have been introduced this year and for the year ahead.

What can you do to help? There are several important things we can all do. Every member of our community has an opportunity to assist in this time of constraint by thinking about how to reduce costs or how to build revenue. We will value suggestions from anyone with ideas about where we can realize savings or where we can realize gains in revenue.

It is important to note that an annual savings of \$25,000 is equivalent to a new endowment of \$500,000. Savings, large and small, can make a meaningful difference, and I invite your suggestions on both efficiency improvements and revenue enhancements. We will soon announce a program to reward individuals who have cost-saving ideas that are actually implemented.

For example, opportunity for cost savings comes in the area of energy conservation, and a task force is to be appointed to focus on this area. Such an effort will save money and reduce our environmental impact. Another area of savings is possible by limiting mailings to our external community and taking advantage of electronic communications instead.

While cost savings through efficiency improvements will be important, this may not be enough

to place us in a strong operating position. Accordingly, we also invite suggestions for revenue-generating ideas. An opportunity in this regard is to make better use of our campus in the summer. A task force will evaluate the opportunities for an expanded set of summer programs to better utilize the campus facilities. More efficient use of our capital assets is a good idea at any time, but especially at a time when we are income-constrained.

There are two other ways you may be able to help. First, if you are able, continue to support the University with gifts. Consider, especially, support for scholarships at a time when many of our University families are experiencing difficult financial times. The precious resources donated to the University represent a very important source of revenue. Every gift matters, and do encourage others to support us as well! Second, while we have a focus on the well-being of employees at the University, many of our current students and alumni are seeking new jobs. Consider assisting in networking to help our students and alumni, and please make known new positions to our Career Center, led by Mark W. Smith, assistant vice chancellor, at msmith@wustl.edu.

As always, I am available to receive your advice as we work together to build a brighter future for the University.

In closing, let me reiterate that our goal must be to preserve our principles of providing an excellent education for our students, to be world class in our research, to serve St. Louis and the broader society and to support the people who make our outstanding education and research programs possible.

It is my aspiration that we all apply creative effort to sustaining our progress as one of the most outstanding research universities in the world. I look forward to our work together to Enhance Our Global Leadership Today to Benefit the World Tomorrow.

Sincerely yours,

Mark S. Wrighton

Mark S. Wrighton

School of Medicine Update



Two wheelin' Stephanie Parrish, executive secretary in the Genome Center, tries out a bike at the Bear Bikers team booth at the School of Medicine's Health Happening '09 health and wellness fair April 9 and 10. The bike, from Big Shark Bicycles, was given as a grand prize at the fair. With Parrish are (from left) Desmond Parrish, her son; Cheryl Lyons, special projects research administrator in the Genome Center; and Paul Moskovitz, owner of Recycled Cycles & Service.

Blocking protein may help to prevent painful nerve condition

BY MICHAEL C. PURDY

Scientists have identified the first gene that pulls the plug on ailing nerve cell branches from within the nerve cell, possibly helping to trigger the painful condition known as neuropathy.

The condition is a side effect of some forms of chemotherapy and can also afflict patients with cancer, diabetes, kidney failure, viral infections, neurodegenerative disorders and other ailments.

School of Medicine researchers showed that blocking the dual leucine zipper kinase (DLK) gene inhibits degeneration of ailing nerve cell branches, possibly preventing neuropathy.

"Neuropathy can become so extraordinarily painful that some patients stop taking their chemotherapy, regardless of the consequences in their fight against cancer," said co-senior author Aaron DiAntonio, M.D., Ph.D., associate professor of developmental biology. "So we're very excited about the possibilities this gene may offer for reducing the likelihood of developing neuropathy."

The findings were published this month in *Nature Neuroscience*.

Scientists have known since 1850 that nerve cells have ways to prune branches (also known as axons) that are injured. Although axon pruning is also a normal part of early human development, inappropriate loss of axons in the adult nervous system causes painful sensations that have been compared to burning, freezing or electric shock and are known as neuropathy.

DiAntonio's lab previously revealed that the fruit fly's version of DLK helps establish synapses, or junctures where two nerve cells communicate. But they found the gene doesn't do the same thing in mice.

Curious about DLK's role in mammals, Bradley Miller, an M.D./Ph.D. student in DiAntonio's lab, consulted with co-



DiAntonio



Milbrandt

senior author Jeffrey Milbrandt, M.D., Ph.D., the David Clayson Professor of Neurology. Milbrandt studies the role of various proteins in neurodegeneration. With support from the University's Hope Center for Neurological Disorders, they showed that the long axons of the sciatic nerve in mice with a mutated DLK gene resisted degeneration after the nerve was surgically cut.

In follow-up tests, Miller and Craig Press, an M.D./Ph.D. student in Milbrandt's lab, took nerve cells in culture and treated their axons with the chemotherapy drug vincristine. Normal

axons degenerated rapidly after exposure to the drug, but axons where DLK's activity had been blocked were protected from degeneration.

"The pain of neuropathy is often a key factor that limits the dose in cancer chemotherapy," DiAntonio said. "We know when patients are going to start their treatment, so one day it might be possible to start patients on a DLK-blocking drug before chemotherapy and spare them this devastating side effect."

DLK appears to act like a contractor that calls in wrecking crews, DiAntonio said. It helps make the decision to eradicate an axon, but the actual demolition is left to other processes called up by DLK.

DiAntonio and Milbrandt also plan to test if blocking DLK stops neurodegeneration in other forms of injury and stress, including stroke, Parkinson's disease and the harm inflicted on the optic nerve by glaucoma.

Kane named Kimbrough Chair for Pediatric Dentistry

BY BETH MILLER

Alex A. Kane, M.D., has been named the Dr. Joseph B. Kimbrough Chair for Pediatric Dentistry in the Washington University Department of Surgery, Division of Plastic Surgery for Use in the Cleft Palate/Craniofacial Deformities Institute for teaching and healing.

Kane is associate professor of plastic and reconstructive surgery and director of the Cleft Palate and Craniofacial Institute at St. Louis Children's Hospital.

Chancellor Mark S. Wrighton and Larry J. Shapiro, M.D., executive vice chancellor for medical affairs and dean of the School of Medicine, made the announcement.

"Dr. Kimbrough's generous bequest allows us to continue to help patients with craniofacial conditions," Wrighton said. "Dr. Kane's extraordinary work with young patients will help to carry on the name of Dr. Kim-

brough and his legacy in the St. Louis area."

"Dr. Kane's compassion for children is evident through his painstaking work to repair devastating facial birth defects or injuries," Shapiro said. "He is an excellent choice to hold this professorship named for Dr. Kimbrough."

"It is a great honor to receive the Kimbrough chair," Kane said. "It is privilege enough to be able to help care for children with craniofacial conditions. To be given recognition of this type is both gratifying and humbling. This represents a testimonial to the dedicated team of professionals with whom I work and the strength of the institutions at Washington University and

Heartburn medications do not ease asthma symptoms

BY GWEN ERICSON

The predominance of heartburn among asthma sufferers led many specialists to suspect that acid reflux could be a trigger for the coughing, wheezing and breathlessness of asthma. In fact, it has become standard practice to prescribe heartburn medication to people with poorly controlled asthma, even if they don't have overt acid reflux symptoms.

But a new study of adults with inadequate asthma control without significant heartburn shows that heartburn medication does not help control their asthma symptoms. The study, conducted by the American Lung Association's Asthma Clinical Research Centers at 20 U.S. sites, demonstrated that participants who took esomeprazole (Nexium) had as many asthma episodes as participants who were given a placebo.

The findings appeared April 9 in the *New England Journal of Medicine*.

"This study goes against the idea that mild or silent acid reflux contributes to uncontrolled asthma," said Mario Castro, M.D., professor of medicine and of pediatrics, who led the study in St. Louis. "It establishes that heartburn medications are not indicated for adults with uncontrolled asthma when they have mild or no symptoms of acid reflux."

However, Castro said prescription heartburn medication is still indicated for those with severe heartburn and poorly controlled asthma because it might improve asthma control in some of these patients.

The practice of prescribing heartburn medication to patients with poorly controlled asthma was a product of common sense — not only did asthma patients often suffer from heartburn, doctors had evidence that stomach acid traveling up the esophagus could get into the lungs and cause coughing. In addition, studies in laboratory animals showed that if the lower esophagus is exposed to acid, it could send nerve signals that loop back to the lungs and cause airway constriction.

But past investigations into the potential benefit of this treatment were inconclusive.

The current study enrolled 412 patients who had poorly controlled

asthma despite being treated with inhaled corticosteroids. But they had either no or very mild acid reflux symptoms. Each participant was randomly assigned to receive either 80 milligrams of esomeprazole or a placebo daily. For 24 weeks, they kept a daily record of their asthma symptoms. Every four weeks, their lung function was tested, and they completed asthma questionnaires.

In both the placebo and treatment groups, episodes of poor asthma control occurred with similar frequency. Occurrences of an urgent-care visit for an asthma attack; a reduction in lung function; a course of corticosteroids, which reduce inflammation; or increased use of bronchodilators, which relax the airway muscles, did not differ significantly between the treatment and placebo groups. Night awakening due to asthma occurred on one or more occasions in about half of the participants, and the rate did not differ significantly between the two groups.

"Despite using four times the typical dose of the heartburn medication, we achieved no improvement in asthma symptoms, control or exacerbation rates," Castro said.

Although the participants were mostly free of heartburn symptoms, when the researchers

measured acid reflux using probes placed in the esophagus for 24 hours, they found that about 40 percent of the study participants had some acid reflux. But even the participants with measureable acid reflux did not achieve greater control of their asthma when they received esomeprazole.

The multicenter network is also conducting a parallel study in children ages 6-17 who have poorly controlled asthma and no heartburn. Called SARCA (Studying Acid Reflux in Children with Asthma), the investigation will try to determine whether heartburn medication can help control asthma in younger patients.

"Acid reflux is fairly common in children," Castro said. "And we know that a finding in adults doesn't necessarily apply to children, so we feel it's important to evaluate whether acid suppression in children with uncontrolled asthma is effective."

Those interested in the SARCA trial can call Volunteer for Health at (866) 362-5656 or visit vfh.wustl.edu.



Castro



Kane

University Events

WUSTL ensembles to present Chancellor's Concert April 26

BY LIAM OTTEN

Three WUSTL ensembles will join forces at 3 p.m. Sunday, April 26, for the 2009 Chancellor's Concert.

The performance, which is free and open to the public, is sponsored by the Department of Music in Arts & Sciences and takes place in the 560 Music Center's E. Desmond Lee Concert Hall.

The program will open with the Washington University Jazz Band, making its first appearance in a Chancellor's Concert. Directed by Chris Becker, the ensemble will perform a selection of big band scores.

The program then will continue with the Washington University Symphony Orchestra. Directed by Dan Presgrave, lecturer and instrumental music coordinator, the 70-plus-member orchestra will perform the overture to Leonard Bernstein's operetta

"Candide," followed by Robert Schumann's "Piano Concerto in A minor." Sophomore Sarah Fern will serve as soloist.

The orchestra will then be joined by the 60-plus-member Washington University Concert Choir, under the baton of John Stewart, director of vocal activities, for a selection of popular opera choruses.

These will include the "Coronation Scene" from Modest Mussorgsky's "Boris Godunov," followed by the "Frost Scene" from Henry Purcell's "King Arthur." Rounding out the set will be two favorites by Giuseppe Verdi: "Va pensiero" from "Nabucco" and the "Anvil Chorus" from "Il Trovatore."

To conclude the program, all three ensembles will share the stage for Pyotr Ilyich Tchaikovsky's spectacular "1812 Overture." For more information, call 935-5566 or e-mail kschultz@arts.wustl.edu.

Disney executive Fedor to speak

BY LIAM OTTEN

WUSTL alumnus Dexter Fedor will examine "The Creative Life of a Walt Disney Executive From the Inside Out" during a talk at the Sam Fox School of Design & Visual Arts at 3 p.m. Friday, April 24, in Steinberg Hall.

Fedor is senior vice president of strategic marketing for the Walt Disney Studio, where he manages brand and acquisition issues and develops film submissions for Walt Disney Pictures and Touchstone Pictures.

The talk will explore his creative life in advertising as well as Disney and its culture. Other topics will include advice on entering the advertising industry, how to make connections and how to stand out in the hiring process. A Q&A with the audience will immediately follow.

Fedor earned bachelor's degrees from both the School of Art and the Olin Business School in 1979. He spent 18 years in the advertising industry working on major campaigns for Levi's 501 jeans, Bank of America, Pacific Bell and others.

He created the California "Dancin'

Raisins" commercials, which won a Silver Lion at the Cannes Film Festival and recently was named one of the "100 Greatest TV Spots of All Time." In all, Fedor has received six Clio Awards and more than 200 additional honors, merits and certificates for his contributions to advertising. His work is included in the permanent collection of pop art at the Smithsonian Institution.

Fedor joined Disney in 1998 as vice president for global brand development. He created the first corporate campaign taking Mickey Mouse into television advertising and, a week after the events of Sept. 11, was invited to the White House to film first lady Laura Bush for a series of public service announcements.

Other key projects have included the development of a new brand model for positioning Disney in retail; the introduction of stylish lifestyle photography at The Disney Store; and the creation of merchandising campaigns for "Toy Story 2," "Dinosaur" and many other films.

The talk is free and open to the WUSTL community. For more information, call 935-9300 or visit samfoxschool.wustl.edu.



Fedor

Magic Helicase • Drinking Water • Opera Scenes

"University Events" lists a portion of the activities taking place April 23- May 6 at Washington University. Visit the Web for expanded calendars for the Danforth Campus (news-info.wustl.edu/calendars) and the School of Medicine (medschool.wustl.edu/calendars.html).

Exhibits

"Painting with Light." May 1 and 2. (Refreshments served.) 7520 Forsyth Blvd. 935-6700.

"Eero Saarinen: Shaping the Future." Through April 27. Mildred Lane Kemper Art Museum. 935-4523.

"Expressions of Jewish Life Through Texts and Objects." Through June 28. Olin Library, Lvl. 1, Grand Staircase Lobby and Ginkgo Rm. 935-4151.

Film

Thursday, April 23

7 p.m. Film & Media Studies Hungarian Film Screening. "A Tanú" (The Witness). Péter Bascó, dir. Steinberg Aud. 935-4055.

Lectures

Thursday, April 23

8 a.m. Holocaust Remembrance Medical Grand Rounds Lecture. "Shoah ... 60 Years Later. What Have We Learned?" Gustav Schonfeld, prof. of medicine. Clopton Aud., 4950 Children's Place. 454-7116.

4 p.m. Vision Science Seminar Series. "Cholesterol and Neurodegeneration: Insights From Niemann-Pick C Disease." Daniel S. Ory, prof. of medicine. Maternity Bldg., Rm. 725. 362-3315.

Friday, April 24

9:15 a.m. Pediatric Grand Rounds. The Inaugural Carl and Sue Smith Lecture in Pediatric Laboratory Medicine. "What's New With Fatty Acid Oxidation Defects: The Long and the Short of an Evolving Metabolic Pathway." Michael J. Bennett, prof. of pathology and laboratory medicine, Children's Hospital of Philadelphia. Clopton Aud., 4950 Children's Place. 454-6006.

11 a.m. Energy, Environmental and Chemical Engineering Seminar. "Toxicity Evaluation of Nanomaterials: Importance of Material Characterization." Saber Hussain, senior scientist, Air Force Research Lab. Lopata Hall, Rm. 101. 935-5548.

3 p.m. Sam Fox School Public Lecture Series. Dexter Fedor, sr. vice president of strategic marketing, Walt Disney Studio. Steinberg Aud. 935-9300.

4 p.m. Dept. of Music Lecture Series. "Alfred Schnittke & the Late Twentieth-Century Culture of Collage: A Preliminary Genealogy of Polystylism." Peter Schmelz, asst. prof. of music. Music Classroom Bldg., Rm. 102. 935-5566.

Saturday, April 25

9 a.m.-4 p.m. WU Frontiers in Technology and Science Conference. (Reception and discussion follows.) Cupples I Hall, Rm. 199. To register: mccarthy@wustl.edu.

10 a.m. Conversations in Biology Speaker Series. "Biofuels: Prospects, Realities and Controversies." Tuan-hua David Ho, prof. of biology. Rebstock Hall, Rm. 215. 935-6871.

Monday, April 27

Noon. Work, Families and Public Policy Brown Bag Seminar Series. "Economic Preparation for Retirement: Then and Now." Michael Hurd, senior economist, RAND Corp. Seigle Hall, Rm. 348. 935-4918.

4 p.m. Immunology Research Seminar Series. Adrian Hayday, chair, dept. of immunobiology, King's College London School of Medicine. Farrell Learning & Teaching Center, Connor Aud. 362-2763.

4 p.m. Siteman Cancer Center Seminar. "Breast Cancer in Elderly Women?" Ellen McCarthy, asst. prof. of medicine, Harvard Medical School. Center for Advanced Medicine, Farrell Conference Room 2. 454-8566.

Tuesday, April 28

Noon. Mallinckrodt Inst. of Radiology Lecture. Annual Hyman R. Senturia Lecture. "Percutaneous Ablation of Hepatic Malignancies: Current Status and Future Directions." Debra Gervais, assoc. prof. of radiology, Harvard Medical School. Scarpellino Aud., 510 S. Kingshighway Blvd. 362-2866.

Noon. Molecular Microbiology & Microbial Pathogenesis Seminar Series. "Differential Control of Bacterial Gene Expression." Eduardo Groisman, prof. of molecular microbiology. McDonnell Medical Sciences Bldg., Cori Aud. 286-1123.

4:30 p.m. Freedom From Smoking Class. "Wanting to Quit." (Also at 5:30 p.m. April 28.) Center for Advanced Medicine, Barnard Health and Cancer Info. Center. To register: 362-7844.

Wednesday, April 29

6:30 p.m.-9:30 p.m. Esophageal & Gastric Cancer Symposium. Dinner Meeting. Cost: \$40. The Ritz-Carlton St. Louis, 100 Carondelet Plaza. To register: 362-6891.

4 p.m. University Libraries Lecture. "Hebrew Belles Lettres and the Memory of Spain: Ibn Verga's 'Staff of Judah' — an Early Printed Book from Washington University's Shimeon Brisman Collection in Jewish Studies." Martin Jacobs, dir., Jewish, Islamic and Near Eastern studies. (Kosher reception follows.) Olin Library, Lvl. 1, Ginkgo Rm. 935-4151.

4 p.m. QUAD-Departmental Seminar Series. "Targeting Heterochromatin Formation in *Drosophila melanogaster*." Sarah C.R. Elgin, prof. of biology. Co-sponsored by depts. of Genetics, of Biochemistry & Molecular Biophysics, of Cell Biology & Physiology and of Developmental Biology. Moore Aud. 362-2139.

Friday, May 1

10:30 a.m. Boeing Center for Technology, Information and Manufacturing Lecture. Annual Meir Rosenblatt Lecture. "Risk and Global Supply Chain Management." Paul R. Kleindorfer, prof. of sustainable development, INSEAD. Charles F. Knight Center, Rm. 220. 935-5577.

Monday, May 4

3 p.m. Siteman Cancer Center Neuro-oncology Seminar Series. "Role of the Tumor Microenvironment in Neoplastic Progression and the Response to Therapy." Zena Werb, prof. of anatomy, U. of Calif., San Francisco. South Bldg., Rm. 3907, Philip Needleman Library. 454-8566.

4 p.m. Immunology Research Seminar Series. "Identifying T Cell Epitopes for CD4 T Cells in Type-1 Diabetes in the NOD Mouse." John Kappler, investigator, Howard Hughes Medical Inst. Farrell Learning & Teaching Center, Connor Aud. 362-2763.

Tuesday, May 5

Noon. Molecular Microbiology & Microbial Pathogenesis Seminar Series. "Chemical, Virtual and Industrial Genetics of Malaria." Elizabeth Winzeler, assoc. prof. of cell biology, The Scripps Research Inst. Cori Aud., 4565 McKinley Ave. 362-1514.

4:30 p.m. Freedom From Smoking Class. "Quit Day." (Also at 5:30 p.m. May 5.) Center for Advanced Medicine, Barnard Health and Cancer Info. Center. To register: 362-7844.

5:30 p.m. Biochemistry & Molecular Biophysics Biophysical Evenings Seminar. "Pif the Magic Helicase." Roberto Galletto, asst. prof. of biochemistry & molecular biophysics. Cori Aud., 4565 McKinley Ave. 362-4152.

Wednesday, May 6

4 p.m. Institute for Public Health Faculty Seminar Series. "Environmental Risk Assessment." Ruth Chan, research assoc. in chemical engineering, and "The Impact of Water Chemistry on the Concentrations of Lead and Arsenic in Drinking Water." Daniel Giammar, assoc. prof. of energy, environmental and chemical engineering. Steinberg Aud., Medical School. 454-7998.

4 p.m. QUAD-Departmental Seminar Series. "The Genomic Code for Nucleosome Positioning." Jonathan Widom, prof. of biochemistry, molecular biology and cell biology, Northwestern U. Co-sponsored by depts. of Genetics, of Biochemistry & Molecular Biophysics, of Cell Biology & Physiology and of Developmental Biology. Moore Aud. 362-2139.

Music

Thursday, April 23

7:30 p.m. Faculty Recital. Steve Lange. Recital Hall, 560 Trinity Ave. 935-5566.

Friday, April 24

6 p.m. Kemper Presents Concert Series. Brotha'D and the WOO-Daddies. Kemper Art Museum. 935-4523.

Saturday, April 25

2 p.m. Senior Recital. Andrew Gavinski. Recital Hall, 560 Trinity Ave. 935-5566.

4 p.m. Concert. Chamber Winds. Tisch Commons, Danforth University Center. 935-5566.

5 p.m. Sophomore Voice Recital. Taylor Martin and Lindsay Keller. Recital Hall, 560 Trinity Ave. 935-5566.

Sunday, April 26

3 p.m. Chancellor's Concert. E. Desmond Lee Concert Hall, 560 Trinity Ave. 935-5566.

Monday, April 27

8 p.m. Concert. Flute Choir. Graham Chapel. 935-5566.

Tuesday, April 28

8 p.m. Concert. Small Chamber Ensembles. Ridgley Hall, Holmes Lounge. 935-5566.

Wednesday, April 29

7 p.m. Concert. Jazz Combo Concert. Ballroom Theater, 560 Trinity Ave. 935-5566.

Thursday, April 30

8 p.m. Concert. Guitar Gala. Graham Chapel. 935-5566.

Friday, May 1

8 p.m. Opera Scenes. (Also 8 p.m. May 2.) Umrath Hall Lounge. 935-5566.

Wednesday, May 6

8 p.m. Concert. Nuclear Percussion Ensemble. Formal Lounge, Danforth University Center. 935-5566.

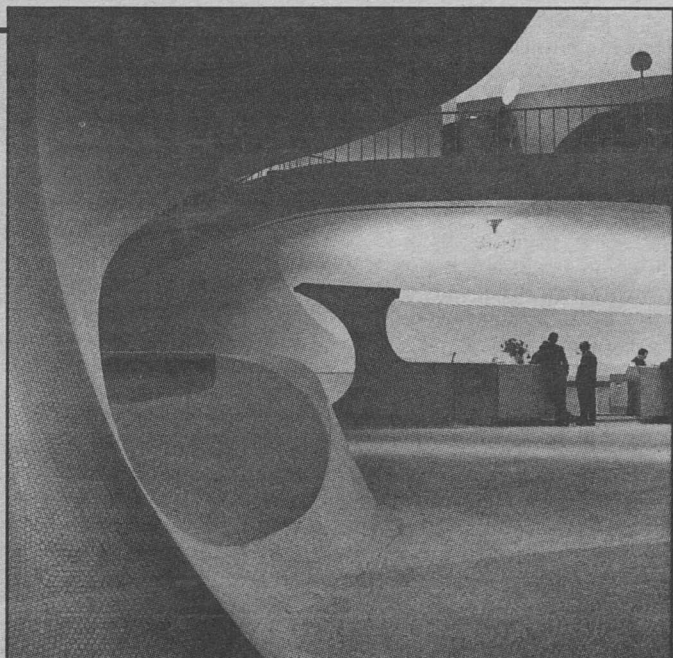
On Stage

Thursday, April 23

8 p.m. School of Medicine Student Musical. "A Funny Thing Happened on the Way to the Forum." (Also 8 p.m. April 24 & 25.) Cost: \$20, \$10 for students. St. Louis College of Pharmacy, Whelpley Aud. For more information: chumfong@wusm.wustl.edu.

Friday, April 24

8 p.m. Performing Arts Dept. Presentation. "Mother Courage and Her Children." (Also 8 p.m. April 25; 2 p.m. April 26.) Cost: \$15, \$10 for students, faculty and staff. Edison Theatre. 935-6543.



COURTESY PHOTO

Last chance The Mildred Lane Kemper Art Museum exhibit "Eero Saarinen: Shaping the Future," the first retrospective to explore the complete career of the acclaimed Finnish-American architect of the St. Louis Gateway Arch, closes its St. Louis run Monday, April 27. The exhibit is a comprehensive look at Saarinen's work, such as the TWA terminal (above) Saarinen designed for New York International Airport, now known as John F. Kennedy International. For more information, visit kemperartmuseum.wustl.edu.

Green Your Office

Make double-sided copies.

Symposium to highlight undergraduate research

By NEIL SCHOENHERR

The spring Undergraduate Research Symposium will be held from 10 a.m.-2 p.m.

Saturday, April 25, in the Laboratory Sciences Building.

Expected to feature more than 140 student presentations, the symposium allows undergraduates to showcase their research projects through posters and visual and oral presentations. The event is free and open to the public.

"The symposium provides a means for our undergraduate students to present their research projects to a wide audience," said Henry Biggs, Ph.D., associate dean in Arts & Sciences and director of the Office of Undergraduate Research.

"We have some truly outstanding students at the University, and the research they are doing, even as undergraduates, is fascinating," Biggs said.

Students from Arts & Sciences,

the Sam Fox School of Design & Visual Arts, Olin Business School and the School of Engineering & Applied Science will present their work.

Patricia J. Pukkila, Ph.D., professor of biology at the University of North Carolina, will deliver a keynote address outlining the graduate student and postdoctoral fellow mentoring program she started at North Carolina.

The School of Engineering & Applied Science's motorsport program, WUrcing, will show off a Formula SAE race car that students have built and are working to refine to allow it to run on ethanol.

Other presentations will include an investigation of eco-friendly restaurants, a line of Aztec-inspired fashions and a study of two endemic plants' pollination and breeding systems, among many more.

For more information, visit ur.wustl.edu.

Libraries host talk on Jewish historical thought

Martin Jacobs, Ph.D., acting director of the Jewish, Islamic and Near Eastern Studies Program in Arts & Sciences and associate professor of rabbinic studies, will present a lecture titled "Hebrew Belles Lettres and the Memory of Spain: Ibn Verga's 'Staff of Judah' — An Early Printed Book from Washington University's Shimeon Brisman Collection in Jewish Studies" at 4 p.m. Wednesday, April 29, in the Olin Library Ginkgo Reading Room (level 1).

Considered one of the outstanding achievements of Hebrew literature of the Renaissance, "Staff of Judah" has special importance in the annals of Jewish historical thought. Jacobs will be

introduced by Jill Storm, graduate student in the Department of History in Arts & Sciences, who will speak on the Brisman Collection.

The lecture accompanies the exhibition "Expressions of Jewish Life Through Texts and Objects," which is on display in Olin Library's Ginkgo Reading Room and Grand Staircase Lobby through June 28.

The exhibition brings together objects from the Jewish Heritage Collection at the University of Michigan's Special Collections Library and texts from Washington University Libraries' Shimeon Brisman Collection in Jewish Studies.

During move-out, donate extra items to 'Share Our Stuff'

No room for the futon, extra boxes of macaroni or nearly-new T-shirts in the backseat of the car during move-out? Don't throw it away; share it instead.

To reduce waste and share with people in need goods typically thrown away during campus and off-campus move-out, WUSTL campus groups are organizing "Share Our Stuff" drop-offs on and off campus this spring and summer to benefit Operation Food Search, the Alzheimer's Disease Research Center and Lydia's House.

"Share Our Stuff" will accept a variety of usable goods, including furniture, clothing, electronics, unopened, nonperishable foods and more. All items must be clean and in good condition.

Drop-off spots for donated items will be located in South 40 and Village residence halls beginning April 27 and continue through May 18. There also will be drop-off locations off campus at 701 Eastgate Ave., 725 Kingsland Ave., 6188 McPherson Ave. and 6654 Washington Ave. April 27-Aug. 8 and on the University Drive alley May 4-18. Off-campus

locations are open 10 a.m.-3 p.m. For more information on locations, dates and times, visit sustain.wustl.edu/sos.

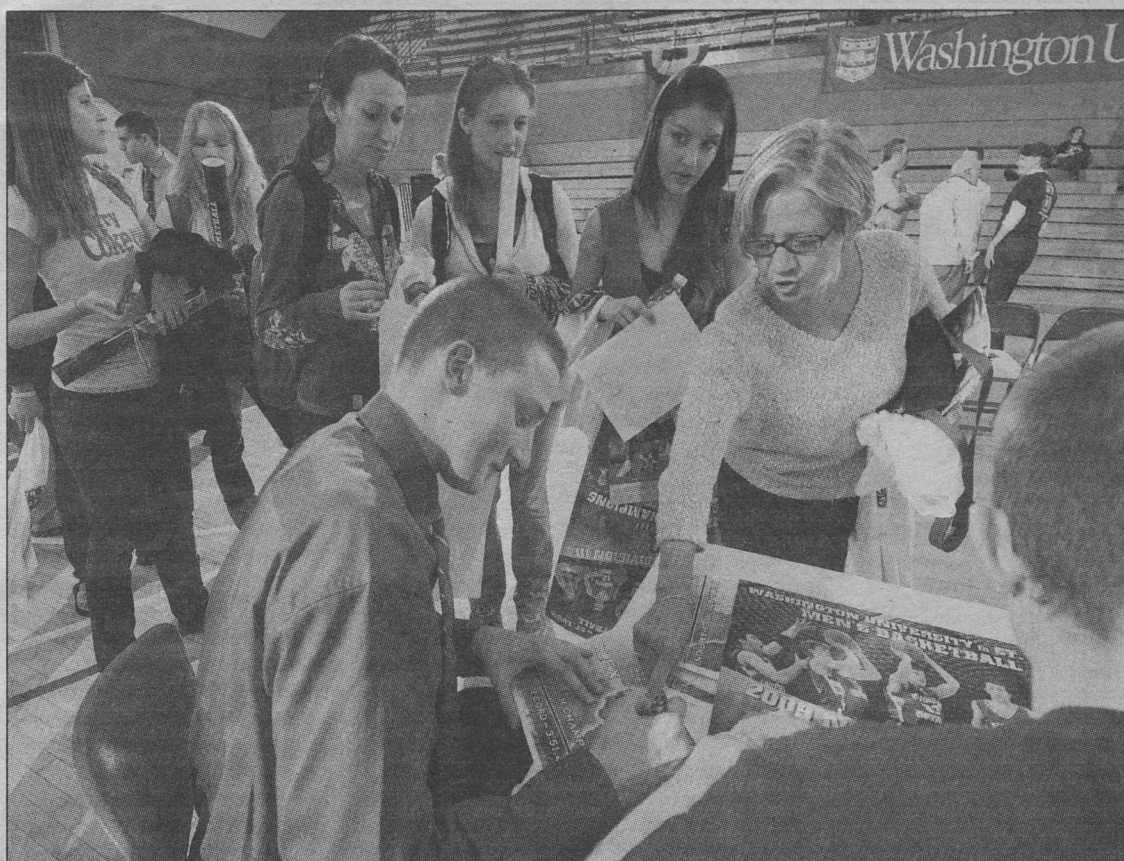
"Share Our Stuff" is organized by Tau Kappa Epsilon fraternity, the Office of Sustainability and Sharing With a Purpose (SWAP), a nonprofit organization sponsored through the Student Entrepreneurial Program.

Operation Food Search is a St. Louis food bank that distributes more than 1.5 million pounds of food and household items to 250 food pantries and soup kitchens.

The Alzheimer's Disease Research Center facilitates advanced research on clinical, genetic, neuropathological, neuro-anatomical, biomedical, psychosocial and neuropsychological aspects of Alzheimer's disease and related brain disorders. Lydia's House works to end domestic violence by being a place of healing and a voice of hope for abused women and their children.

For more information, visit sustain.wustl.edu/sos or call 935-6214.

Sports



Swimmer Alex Beyer is happy to oblige a fan with his autograph, as were members of the men's basketball team assembled April 15 in the Field House to celebrate their respective national crowns. Beyer, a junior, won the NCAA Division III national championship in the 400 Individual Medley event March 19, and the men's basketball team earned its second straight NCAA Division III national title March 21. The Celebration of Champions drew about 750 WUSTL sports fans, who picked up posters, T-shirts and pizza at the celebration.

Men's tennis wins UAA championship

The No. 2-ranked men's tennis team captured its first-ever University Athletic Association (UAA) championship with a 5-4 victory over top-ranked Emory University April 19, extending its school-record winning streak to 16 matches and ending Emory's 19-year run as conference champion.

Junior Danny Levy clinched the match with a 6-2, 5-7, 6-2 victory over Oliver Lopp at No. 5 singles. The Bears (19-2) gain the automatic bid to the NCAA Division III tournament, where they will be making their 10th straight appearance and 14th overall.

WUSTL also picked up four wins last week en route to the UAA title over the University of Missouri-St. Louis April 14; Southern Illinois University Edwardsville April 15; Brandeis University April 17; and Carnegie Mellon University April 18.

Manning sets school golf record at Millikin

Junior Margaret Manning followed up a career-best round April 17 with a school-record 75 April 18 to lead the women's golf team to a fifth-place finish at the Millikin Spring Classic.

Manning, who tied for the lowest 18-hole round of the tournament, finished the 36-hole event with a 157, good for a career-best sixth-place finish out of 87 golfers.

Illinois Wesleyan University shot a 635 to claim the team title, while Rend Lake Community College (645), Wheaton College (656), Hope College (662) and Washington University (680) rounded out the top five.

Junior Kristina Zeschin and sophomore Kathleen Pettinato finished with a 174; freshman

Sarah Miller shot a 177; and freshman Katie Homa (178) rounded out scoring for WUSTL. Junior Elizabeth Pfohl competed as an individual and tied for 58th with a 184.

Softball extends win streak to eight

The softball team extended its winning streak to eight by winning six games last week. The Bears picked up two key regional victories with a doubleheader sweep over Maryville University April 15 at home. WUSTL came from behind for a 2-1 victory in Game 1 and then posted a 1-0 victory in nine innings in Game 2.

The Bears pushed their win total to more than 20 games for the 10th consecutive season with a pair of victories April 17 at the Illinois Wesleyan University Invitational, defeating Blackburn University 8-0 in six innings in Game 1 and then rallied for a 6-1 win over Hope College in Game 2. WUSTL concluded the week by banging out 31 hits in a two-game sweep at Missouri Baptist April 18.

During the streak, senior Kerry Kreitman led the team batting .500 (10-20) with five RBIs, while junior Ashton Hitchcock hit .483 (14-29) with a team-best nine RBIs.

Sophomore Claire Voris was 4-0 on the mound with a 0.25 ERA with 42 strikeouts in 28 innings pitched. WUSTL (23-8) continues its four-game series with Missouri Baptist at home Saturday, April 25. Game 1 of the doubleheader is set to begin at noon.

Women's tennis enters postseason on a roll

The No. 14 women's tennis team posted a 6-1 win over Division I Southern Illinois University Edwardsville (SIUE) April 16, pushing its winning streak to five straight.

The Bears concluded their regular-season schedule with a 13-4 overall record and will begin competition in the University Athletic Association Championship Friday, April 24, in Waltham, Mass.

Against SIUE, Washington University split two doubles matches and went on to take four singles points. Sophomores Kalee Cassidy and Elise Sambol teamed to pick up an 8-2 win at second doubles, and Sambol also won at No. 3 singles.

Also earning singles victories was sophomore Karina Kocemba in the No. 1 match, senior Erin Swaller playing at No. 2 and sophomore Kristen Fleming, who won at No. 4.

Track competes at Wheaton Twilight

The men's outdoor track and field team finished third, and the women were fourth at the Wheaton Twilight Meet April 18.

The women submitted a pair of provisional qualifying times. The 1,600-meter relay team of seniors Erika Wade, Alli Alberts, Krystyn Stowe and Danielle Wadlington placed second with a provisional mark of 3:55.60, while Wadlington eclipsed the NCAA qualifying time in the 100-meter hurdles, placing third in 14.88.

The men had four first-place finishes. Senior Pierre Hoppenot won the 100-meter hurdles, senior Nick Silverman was the top finisher in the 3,000-meter run, freshman Tyler Jackson placed first in the 110-meter hurdles, and the 1,600-meter relay team of junior Iby Umana, seniors Tanner Coghill and Nate Koslof and sophomore Ben Harmon earned the top spot with a time of 3:17.27.

The University Athletic Association championships begin Saturday, April 25, in Pittsburgh.

And More

Thursday, April 23

4 p.m. Net Impact Student Group Panel Discussion. "CSR: Making An Impact on Business." Simon Hall, Rm. 112. For more information: blackburnb@wustl.edu.

5 p.m. Skandalaris Center Social Entrepreneurship & Innovation Competition Awards Ceremony. Bill Strickland, CEO, Manchester Bidwell Corp., keynote speaker. Simon Hall, May Aud. 935-9134.

Saturday, April 25

10 a.m.-2 p.m. Spring 2009 Undergraduate Research Symposium. Lab Sciences Bldg. 935-7342.

Sports

Saturday, April 25

Noon. Softball vs. Mo. Baptist U. WUSTL Field. 935-4705.

Sunday, April 26

4 p.m. Softball vs. Fontbonne U. WUSTL Field. 935-4705.

Tuesday, April 28

4 p.m. Softball vs. Greenville College. WUSTL Field. 935-4705.

Thursday, April 30

1 p.m. Baseball vs. Maryville U. Athletic Complex. 935-4705.

Saturday, May 2

10 a.m. Baseball vs. Webster U. Athletic Complex. 935-4705.

Noon. Softball vs. DePauw U. WUSTL Field. 935-4705.

Sunday, May 3

12:30 p.m. Baseball vs. DePauw U. Athletic Complex. 935-4705.



Thank you, and you! Linda Pike, Ph.D. (right), associate professor of biochemistry and molecular biophysics, and her husband, J. Evan Sadler, M.D., Ph.D., professor of medicine and of biochemistry and molecular biophysics, receive wrapped silver platters from Chancellor Mark S. Wrighton in recognition for both professors' 25 years of service to Washington University during a reception April 14 at Harbison House. In 2009, 66 faculty and staff members completed a quarter-century of dedication to the University.

Fellows

Will be inducted in Oct. 10 ceremony

— from Page 1

Fellows are selected through a competitive process that recognizes individuals who have made pre-eminent contributions to their disciplines and to society at large.

This year's new fellows and foreign honorary members will be welcomed during an Oct. 10 induction ceremony at the academy's headquarters in Cambridge, Mass.

Goodenough was an 18-year-old sophomore English and French literature major at Barnard College in 1961 and then switched majors and completed 120 hours, including advanced math, physics and chemistry for which she had no background, in just three years. She graduated at 20 with a bachelor's degree cum laude in zoology in 1963.

She enrolled in the master's program in zoology at Columbia University. By 1965, she was a doctoral candidate in biology at Harvard University, where she completed her coursework and dissertation in 1969 and then joined the faculty after two years of postdoctoral fellowship in 1971.

During her postdoctoral years she wrote the textbook "Genetics," recognized as a classic in the field, which went through three editions and has been translated into five languages. She came to WUSTL in 1978 as associate professor of biology and was promoted to professor in 1982.

Goodenough is a high-profile molecular/cell biologist who has served as president of the American Society of Cell Biology.

She and her colleagues have elucidated key features of the life cycle of the alga *Chlamydomonas reinhardtii*, including the identification of its mating-type locus and key genes involved in sex determination and the haploid-diploid transition.

Goodenough also has helped bridge the gap between science and religion, serving as president of the Institute for Religion in an Age of Science and organizing national seminars on the topic. In 1998, she introduced religious naturalism with the publication of "The Sacred Depths of Nature," which interweaves traditional religious thought, myth and mysticism with our science-based understandings of nature.

The book explores the science behind evolution, emotions, neuroscience, the origins of life, sexuality and death while relating them to familiar religious and cultural concepts. Each of the book's 12 chapters concludes with a reflection on the scientific insights.

Goodenough has five children and five grandchildren.

Wertsch directs the International & Area Studies Program. In addition, he holds appointments in education, psychology, anthropology and Philosophy-Neuroscience-Psychology, all in Arts & Sciences.

Wertsch joined the faculty of Arts & Sciences in 1995 as professor of education and chair of the department.

In spring 1998, he was a fellow at the Swedish Collegium for Advanced Studies in the Social Sciences in Uppsala, Sweden, and, in spring 2000, he held the Meaker Professorship at Bristol University in England.

In addition, he holds honorary degrees from Linköping University in Sweden and Oslo University in Norway, and he is an honorary member of the Russian Academy of Education and a fellow of the American Psychological Association.

Among Wertsch's research interests are language, thought and culture, particularly the relationship between history and national identity. His most recent work analyzes the transformation that collective memory has undergone during the transition from Soviet to post-Soviet Russia.

He has received several fellowships to study in Russia and co-authored a 1994 article titled "Official and Unofficial Histories: The Case of Estonia" that was published in the Journal of Narrative and Life History. Along with more than 150 additional articles, chapters and reviews, his publications include "Vygotsky and the Social Formation of Mind"; "Voices of the Mind: A Sociocultural Approach to Mediated Action"; "Mind as Action"; and "Voices of Collective Remembering."

Since joining the WUSTL faculty, Wertsch has played a major role in developing several areas of research and teaching in Arts & Sciences, including the International & Area Studies Program and the Arts & Sciences Interdisciplinary Initiative, which aims to foster interdisciplinary teaching and research across the humanities, social sciences and natural sciences.

Wertsch earned a bachelor's degree in psychology from the University of Illinois at Urbana-Champaign in 1969; a master's in education from Northwestern University in 1971; and a doctorate in educational psychology from the University of Chicago in 1975.

Yokoyama is internationally recognized for his research into an important component of the immune system that protects against viruses and tumors.

Yokoyama's studies have helped show how various mechanisms license, restrain and unleash natural killer (NK) cells. His lab was the first to provide the molecular basis for a theory known as the "missing self" hypothesis.

Prior to the discovery of NK cells, scientists had conceptualized the immune system's method for recognizing invaders as comparable to that of police using an all-points bulletin: An alert went out that a particular invader had been seen, and immune system cells searched for and attacked that invader when they found it.

NK cells opened up a new possibility more comparable to that of a border guard. Scientists suspected NK cells were checking the molecular "credentials" of everything they encountered and could attack if the proper identification wasn't forthcoming. In 1992, Yokoyama's lab was the first to identify a receptor on the surface of NK cells that enabled this process.

The receptor inhibits NK cell function when it recognizes the appropriate credentials, which in this case are major histocompatibility complex class I molecules. Normally present on the surface of cells, these molecules often are absent on tumors and virus-infected cells, allowing the NK cell to attack the abnormal cells that are "missing-self."

Yokoyama, who also is director of the Medical Scientist Training Program, clinical attending physician in internal medicine and rheumatology, and a Howard Hughes Medical Institute investigator, was the 2001 recipient of the Novartis Prize for Basic Research in Immunology, which is awarded only once every three years at the International Congress of Immunology.

He earned a medical degree at the University of Hawaii at Manoa.

He came to the School of Medicine in 1995 as the director of the Division of Rheumatology in the Department of Medicine.

Sustainability efforts helped by redistributing unused food

'Green' eating options help, too

By JESSICA DAUES

Every Monday, Tuesday, Wednesday and Thursday, members of student group Feed St. Louis meet at Center Court on the South 40 to load leftover food into a car and deliver it to a shelter. Every Wednesday and Friday, leftover food at School of Medicine eateries is collected and distributed to shelters and shut-ins.

Donating unused food is one way WUSTL tries to "reach out" to the St. Louis community, said Feed St. Louis president Karin Underwood, a sophomore biology major in Arts & Sciences. What is less intuitive is the food donation's role in Washington University's sustainability efforts.

"The redistribution of the food that goes unused by our campus community is a tremendously important sustainability issue," said Matt Malten, assistant vice chancellor for sustainability.

"Large amounts of energy and associated greenhouse gas emissions, water and other resources are required to provide our food," Malten said. "Wasting food is equivalent to wasting the energy, emissions, water and resources. Reuse ensures that resources are not wasted and ensures that food is nourishing people, not landfills."

Sustainability was one reason Feed St. Louis originally was created in 2000, said Underwood.

"The Feed St. Louis group was founded by a student, Arash Sabet, who saw the amount of food wasted on campus and thought it was ridiculous," Underwood said. "'Sustainable living' weren't big buzzwords back then but was a big part of the motivation."

The current incarnation of Feed St. Louis, formed when two student groups, Feed St. Louis and STONE Soup, merged in 2007. It collects leftover food — about 975 meals a month, according to Underwood's estimates — from Center Court, the Village and the Bear's Den on the Danforth Campus. The group delivers to Our Lady's Inn, Gateway Homeless Services and St. Peter and Paul Shelter, all in St. Louis.

Feed St. Louis plans to work with WUSTL Dining Services to expand its reach and collect unused food from other dining locations on the Danforth Campus, Underwood said.

Leftover food at the School of Medicine is donated to an organization called Campus Kitchens, said Rosemary Girouard, food service director at the medical

school. The Saint Louis University branch of Campus Kitchens, a national organization, makes twice-weekly pickups at the medical school and delivers food to shut-ins and shelters in the St. Louis area.

Girouard, who estimated that eateries at the School of Medicine donate approximately 60 pounds of food per week, said the donation benefits all involved. "It helps us see what food was really being used and what was going to waste," she said. "It's also helping the community, helping others who don't have access to good food."

In addition to delivering leftover food, Feed St. Louis also meets on Sundays at Centenary Methodist Church in St. Louis to cook and serve dinner to the homeless. This past holiday season, Feed St. Louis partnered with WUSTL Dining Services to organize a holiday dinner downtown. WUSTL Dining Services donated food, and WUSTL chefs came downtown to cook.

WUSTL Dining Services is involved in many other initiatives to promote "green" eating on campus, including Farm to Fork — a program to purchase seasonal and regional food from within a 150-mile radius of campus, both reducing greenhouse gas emissions that result from long-distance shipping and supporting local farmers — and Seafood Watch — a program to promote sustainable alternatives in seafood. Dining Services hosted a sustainability conference in February at the Danforth University Center, where Bon Appetit CEO Fedele Baucio discussed the importance of sustainable practices.

"Sustainability is a very important and core initiative for Dining Services and Washington University," said Nadeem Siddiqui, manager of WUSTL Dining Services.

Dining Services also only serves Fair Trade bananas and is testing the use of used cooking oil as fuel for Dining Services vehicles. At the beginning of this month, it began offering locally made Companion Bakery bagels.

It is also introducing reusable "grab and go" containers and developing a new decision-making matrix that will guide Dining Services to purchase more locally grown, organic foods. Dining Services recently received an "A" for its sustainability efforts from the College Sustainability Report Card.

For more information about Feed St. Louis, e-mail Underwood at ksunderw@wustl.edu.

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Notables

Two doctoral students inducted into Bouchet Honor Society

Two doctoral students were inducted into the Edward A. Bouchet Graduate Honor Society at the annual Bouchet Conference on Diversity in Graduate Education March 28 at Yale University.

The 2009 Bouchet Fellows are N'Goundo Magassa, a doctoral student in the Molecular Microbiology and Microbial Pathogenesis Program in the Division of Biology and Biomedical Sciences, and Veronica Shead, a doctoral student in the Clinical Psychology Program in the Department of Psychology in Arts & Sciences.

The Bouchet Society recognizes outstanding scholarly achievement and promotes diversity and excellence in doctoral education and the professoriate.

Its network of pre-eminent scholars exemplifies academic and personal excellence, character, service and advocacy for students who have been traditionally underrepresented in the academy.

Yale and Howard universities established the Bouchet Society in 2005 to recognize the life and academic contributions of Edward Alexander Bouchet, the first African-American to earn a doctorate from an American university. He earned a doctorate in physics from Yale in 1876.

Sheri R. Notaro, Ph.D., associate dean of the Graduate School of Arts & Sciences, coordinates the WUSTL chapter of the Bouchet Society.

"Both N'Goundo Magassa and Veronica Shead embody the qualities of Edward A. Bouchet through their pursuit of academic excellence, outreach and service," Notaro said. "Their scholarly presentations at the Bouchet Society diversity conference at Yale were extremely impressive and well-received."

Magassa's research interests include understanding the methods used by bacterial pathogens to successfully infect human cells. Her dissertation research is focused on characterizing how the *Streptococcus pyogenes* pore forming protein streptolysin O translocates the *S. pyogenes* NAD glycohydrolase into host cells.

Magassa provides training, mentorship and guidance to graduate students who rotate through her

lab. She also volunteers with the Junior Scientist Institute and helps recruit graduate students into doctoral programs at WUSTL, offering advice, support and encouragement.

Magassa, who earned a bachelor of arts degree in biochemistry in 2002 from Smith College, is a Chancellor's Graduate Fellow.

Shead's research efforts are focused on the area of hypertension and aging. Her dissertation, "Implementation of Hypertension Treatment Recommendations and Their Effect on Blood Pressure," examines variables influencing the implementation of lifestyle change for their overall effect on blood pressure control.

Shead has been involved in outreach and service throughout her life. A member of Alpha Kappa Alpha Sorority Inc., an organization dedicated to service, she has participated in the Susan G. Komen Race for the Cure with her family, facilitated a support group for adults with early-stage dementia, and, as a track coach at a St. Louis high school, mentored teenage girls.

Shead, who earned a bachelor of science degree in neuroscience in 2002 from Vanderbilt University, a bachelor of arts in psychology from the University of Missouri-St. Louis in 2003 and a master's degree in psychology from WUSTL in 2006, is the recipient of a Dean's Dissertation Fellowship.

WUSTL was invited to become a Bouchet chapter member in 2007, joining Georgetown and Cornell universities and the universities of Michigan and Washington.

The WUSTL Bouchet Society Selection Committee, which chose the third class of Bouchet Fellows this semester, comprises Richard J. Smith, Ph.D., dean of the Graduate School of Arts & Sciences and the Ralph E. Morrow Distinguished University Professor; Notaro; Garrett A. Duncan, Ph.D., associate professor of education, of African and African American studies, of American culture studies and of urban studies, all in Arts & Sciences; and Leah Merrifield, special assistant to the chancellor on diversity initiatives.



Magassa



Shead

Pump

A third-generation heart assist device

— from Page 1

battery packs, patients usually go home while they wait for a heart transplant.

The LVAD used in this study, the VentrAssist, is termed a third-generation heart assist device. Measuring 2.5 inches across and weighing 10 ounces, the pump is considered an improvement over earlier devices because its size and light weight make it suitable for small adults and children. In addition, its pumping mechanism has no contacting parts for improved durability.

Patients who received the LVAD in the study were approved and listed for cardiac transplantation. The study considered the device successful if a patient survived until heart transplantation or survived at least 180 days after the device was implanted and remained qualified for heart transplantation. Eighty-five percent of patients met this measure of success.

Out of 98 patients who received the device, 60 were transplanted, 19 continued to be supported with the device and 19 died. The median time on LVAD support was 131 days. Adverse events reported during the trial included stroke and bleeding, and the number and type of adverse events was similar to other LVADs but better than that of first-generation VAD devices.

Answering standardized questionnaires for patients with heart failure, patients reported a significantly improved quality of life after receiving the device, indicating that their heart failure was less

apt to interfere with everyday activities such as housework, hobbies or sleeping or to affect their mood, ability to concentrate or energy level.

"Before implantation of the device, 80 percent of these patients were rated class four on the New York Heart Association scale — they were short of breath at rest," Ewald said.

"But by six months, 84 percent were in class one or two, meaning their heart failure symptoms were minimal or mild. All of them were able to go home with the device, and that allowed them to rehabilitate themselves — their nutrition improved, and they were in better shape, making them better candidates for heart trans-

plantation," Ewald said.

The positive results from this clinical study mean the VentrAssist will be submitted to the U.S. Food and Drug Administration for approval for use as a bridge to a heart transplant. In the interim, the School of Medicine will continue to provide the device to patients as part of a clinical trial.

WUSTL doctors are continuing to enroll patients in a trial of the device as a bridge to transplantation, and they are also testing the device as "destination therapy" to see if the device can function as an alternative to heart transplant by permanently assisting failing hearts.

For information about enrolling in the trial, call 454-7687.

Partnership

'We share a common benefactor'

— from Page 1

opportunities to become involved in Brookings programs of mutual interest to Brookings and Washington University.

"I am extremely pleased that we will be pursuing areas of common interest and opportunities for collaboration in research, policy studies and academic activities," said Strobe Talbott, president of the Brookings Institution.

"We share a common benefactor who helped a new president design a massive federal intervention in the markets and the economy. The parallels to today are striking, and I know that together we will continue to advance his faith in independent, high-quality policy research and education," Talbott said.

WUSTL and Brookings

anticipate publishing the results of conferences, projects and other programs conducted through the new partnership with the Brookings Institution Press, operated by the Brookings Institution.

"Clearly, Washington University's faculty and students and the distinguished scholars at the Brookings Institution will have many opportunities to collaborate, both in Washington, D.C. and in St. Louis," Wrighton said. "I am strongly committed to providing resources that will encourage such collaborative efforts and will value greatly the continuing partnership with Strobe Talbott and his colleagues at the Brookings Institution."

The Brookings Institution is a private nonprofit organization devoted to independent research and innovative policy solutions. For more than 90 years, Brookings has analyzed current and emerging issues and produced new ideas that matter — for the nation and the world.

Brown School to present faculty, alumni awards

The George Warren Brown School of Social Work will honor five distinguished individuals for outstanding service to their profession during its annual Alumni Awards celebration at 6 p.m. Tuesday, April 28, in Whitaker Hall Auditorium.

Three alumni will receive Distinguished Alumni Awards, and two faculty members will receive Distinguished Faculty Awards.

Distinguished Alumni Awards

Rita Montgomery Hollie (B.A. '69, MSW, J.D. '73).

Looking for the most effective way to be a change agent for the poor, Hollie applied to the Brown School and enrolled as the first student in the school's MSW/J.D. dual-degree program.

She started her career in the Missouri attorney general's office, where she applied consumer protection legislation to the problem of lead-based paint. She also helped form the adoption agency Friends of African-American Families and Children Service Center.

Hollie has taught law courses and served as a St. Louis municipal judge, where her primary focus was on adoptions, guardianships and child advocacy. She is a founder and partner of Montgomery Hollie & Associates LLC, a St. Louis-based law firm specializing in all aspects of adoption and family law.

Barth A. Holohan III

(MSW, MBA '01). Holohan is committed to ensuring a greater quality of life for older adults. In addition to being the co-founder and co-owner of Family Partners Adult Day Services, Holohan is the founder and president of St. Louis-based Continuum, a company that provides private-duty home care, nursing, retirement community programs, personal emergency medical response systems and geriatric care management.

Holohan serves on many boards and was a 2005 Ernst & Young Entrepreneur of the Year finalist. In 2007, he was awarded the St. Louis Business Journal 40 under 40 Award and the SSM Health Care Stewardship Award.

Sudha Nair, Ph.D (MSW '91). Nair has provided leadership in creating, testing and improving many of Singapore's community-based social

services and public policies.

She also has been a leader in addressing the problem of domestic violence, serving as the founding director of Centre for Promoting Alternatives to Violence, the primary organization in Singapore focused on this issue.

Nair also is a leading scholar studying problem gambling in Singapore. Among her many recognitions, Nair has been named Social Worker of the Year in her country. She is a member of the faculty and deputy head of the Department of Social Work at the National University of Singapore. She also directs the Centre for Social Development, Asia — the sister to Brown School's Center for Social Development.

Distinguished Faculty Awards

F. Brett Drake, Ph.D., and Melissa Jonson-Reid, Ph.D.

Both Jonson-Reid and Drake bring a shared passion for child welfare and evidence-based practice to their research and teaching at the Brown School.

Their latest venture — a new book titled "Social Work Research Methods: From Conception to Dissemination" — provides students with a practical guide for conducting social science research projects from start to finish.

They are collaborating on research that extends their work in child welfare to address issues facing young adults. The research, which is funded by the Centers for Disease Control and Prevention (CDC), represents the first direct CDC grant to the Brown School.

Although clearly a powerful pair, each has made great individual contributions to the field and to the Brown School.

Drake's research has focused on early intervention cases of child neglect and the connections between socio-environmental conditions and child neglect.

Jonson-Reid studies outcomes associated with child adolescent abuse and neglect, with a specific interest in policy and professional development in the area of school social work. She also recently submitted a CDC grant to start a Brown School Center for Violence and Injury Prevention.

For more information, visit gwbweb.wustl.edu.



Strobe Talbott (left), president of the Brookings Institution, meets with Chancellor Mark S. Wrighton in Washington, D.C., April 21, the day the new partnership was announced.

Washington People

Community is a major theme in the life and work of Jonathan M. Chase, Ph.D., associate professor of biology in Arts & Sciences and director of the Tyson Research Center.

As an ecologist, his niche is community ecology, and he is particularly interested in the processes that lead to variation in the numbers and types of species that live in a given site, and how that varies through space and time.

Chase has noted, for example, how one wetland may have a whole suite of species that is much different than a wetland that is less than a mile away. Sometimes that variation is quite predictable if, for example, fish are present in one wetland and not in the other. However, sometimes that variation is much less predictable and almost seems random among wetlands that otherwise seem the same.

In coming to WUSTL in 2002 after three years on the faculty at the University of Pittsburgh, Chase was excited by the strong



(From left) Jonathan M. Chase, Ph.D., examines plants in Forest Park with doctoral students Lauren Woods and Kristin Powell. "My research is always looking for the middle ground," Chase says. "We try to understand what the processes are that create variation. In Missouri, we're right in the middle of an ecological zone where prairies, forests, savannas, streams, natural wetlands and ponds come together."

By TONY FITZPATRICK

Making connections

Chase makes Tyson Research Center a regional hub

evolutionary biology core of the WUSTL biology department and by the emerging environmental studies major. He saw willingness from the administration and an opportunity to create "a small, dynamic group of ecologists, committed to building a strong ecology base at the University," Chase says. "I also saw the Tyson Research Center as a rare opportunity to do my research close to campus."

The community of ecologists now include Tiffany Knight, Ph.D., assistant professor of biology and associate director of environmental studies, who came in 2004, and assistant professors Ellen Damschen, Ph.D., and John Orrock, Ph.D., who came in 2007 — all of whom have made notable contributions to ecology early in their careers.

Network of natural places

The Tyson Research Center, 2,000 acres of bucolic beauty less than 25 miles from the Arch, is another example of Chase's search for community. Named director of Tyson in 2007 after having served as interim director since 2005, Chase made it a priority to extend the beneficence of the station to the entire WUSTL community as well as other researchers in the St. Louis area and beyond, and to connect to a network of neighboring natural places, including the Missouri Botanical Garden's nearby Shaw Nature Preserve.

The preserve, a stunning natural area 15 miles west of Tyson,

and Tyson have a grant together for an internship project that is enthusiastically supported by Peter Raven, Ph.D., the Engelmann Professor of Botany at WUSTL and director of the Missouri Botanical Garden.

"It's great for our researchers to go to these other natural areas such as Shaw and several Missouri Department of Conservation areas and examine the variation in their ecosystems," Chase says. "Even with the 2,000 acres at Tyson, we only get a hint of the variation at play in natural areas."

The collaboration with Shaw and the Missouri Botanical Garden impressed the National Science Foundation so much that it granted this community of researchers \$1.8 million to develop a high-school summer internship program. In its first round, which began last summer, 50 young faces went to Shaw to learn basic skills and research techniques in the part of the program called SHIFT (Shaw Institute for Field Training). This summer, 20 of those same students will ply their newfound skills on research projects with WUSTL faculty and graduate students as part of the Tyson Ecological Research Fellowship.

"We think the grant illustrates that our programs at Tyson and in environmental studies are bursting at the seams," Chase says.

Chase estimates that the use of Tyson for research and teaching has increased significantly since 2002 and that there are 30-40 active research projects at the site that cut across disciplines.

Research at Tyson also has become one of the thrusts of the International Center for Advanced Renewable Energy and Sustainability (I-CARES). I-CARES nurtures collaborations within WUSTL and with regional and international partners in order to contribute to rapid progress in addressing the world's energy and environmental crisis.

A good scientist

For a man who loves nature and the science of ecology, Chase's background is ironic. He grew up in Motown and in Southfield, a suburb of Detroit.

He had a curiosity about animals and plants from an early age, and he found outlets nearby for his interest. A neighborhood cemetery was a favorite place to catch tadpoles and try to raise them in his home. Family vacations often were spent in northern Michigan amid the splendor of the Upper Peninsula. He was inspired in high school by a teacher, Dr. Lahde, who taught a course

in natural history that featured live animals in the classroom.

He went to college "40 miles down the road" at the University of Michigan in Ann Arbor, where he pursued a natural resources course of study. As an undergraduate, he studied in the Montana mountains for a couple of summers amidst "awesome" scenery; he observed grasshoppers, bison and bighorn sheep and how they and flora reflect large ecological problems.

Chase earned a master's degree at Utah State University and credits his doctoral program at the University of Chicago and the people there as among the most influential things that have shaped him as an academic.

"I wanted to go to a place where I could really thrive and have a lot of freedom, and I found it there," Chase says. "I had two advisers, Mathew Leibold and Tim Wootton, who are brilliant individuals, but the most important things they showed me was their passion and the way they carried themselves. From them, I learned how to be a good scientist."

'Middle-ground' approach

Chase says that many ecologists are looking for hard and fast rules, either A or B. Is a species' distribution limited by competition, or is it predation? A nutrient, or pH?

"My research is always looking for the middle ground," he says. "We try to understand what the processes are that create variation. In Missouri, we're right in the middle of an ecological zone where prairies, forests, savannas, streams, natural wetlands and ponds come together."

Early on at WUSTL, Chase's "middle-ground" approach grew attention. In 2003, Chase and Knight, then a postdoctoral researcher at the University of Florida, found that the previous year's drought was the cause of high mosquito populations coming out of wetlands in the following year. This is because some wetlands, which are the home to mosquito larvae, dry during drought years, drastically reducing mosquito predators — from fish to water beetles — and competitor species such as snails, tadpoles and zooplankton.

This conclusion stood the ecological world on its head and, with more extensive scrutiny, eventually could have implications in the prediction and control of diseases like West Nile virus, St. Louis encephalitis and malaria, which are all carried by mosquitoes.

Also, in 2003, Chase published the book "Ecological Niches" with Leibold, Ph.D. The book both solidified and challenged the classic notion of niche theory. Their synthetic niche theory included classical features of niche, such as the resources organisms use as well as their effects on that resource, but also incorporated a variety of other factors such as predation and the role of heterogeneous landscapes and disturbances, such as drought. Further, the theory was able to transcend across traditional subdisciplines of ecology from evolutionary ecology to communities and ecosystems.

The outdoors

In 2004, Chase along with Pieter Johnson, Ph.D., then at the University of Wisconsin-Madison, traced frog deformities in the northern Midwest to eutrophication in ponds and wetlands. Eutrophication creates higher phosphate and nitrogen (prime components of agricultural fertilizer) levels in wet ecosystems. Higher levels of these nutrients cause a profound impact on the food web that imperils frogs' existence.

Most of the evidence pointed to a frog parasite, but Chase's study, published in Ecology Letters, hypothesized a more complex tangled web that linked farming practices and development to the eutrophication and frogs' deformities and deaths.

In 2007, Chase, along with Johnson and others from the University of Wisconsin, published an experimental confirmation of this hypothesis in the Proceedings of the National Academy of Sciences.

In 2008, Chase won the Mercer Award from the Ecological Society of America for a paper published in the Proceedings of the National Academy of Sciences on drought and species homogenization. The award is given to the best ecology paper of the year by an ecologist under 40. At the end of April, Chase will be given an innovation award from the Academy of Science of St. Louis for the achievements of a scientist under 40.

Chase and his wife, Tiffany Knight, enjoy hiking, boating, running, TV, Nintendo Wii and nice meals, but their recreational activities often center on the outdoors.

"One of the top five things I want to do in a given day is ecology," Chase says. "If Tiffany and I choose to do something outside and we happen to come across a plant or frog that we'd been looking for, we don't consider it work. We consider it a windfall."

Jonathan M. Chase

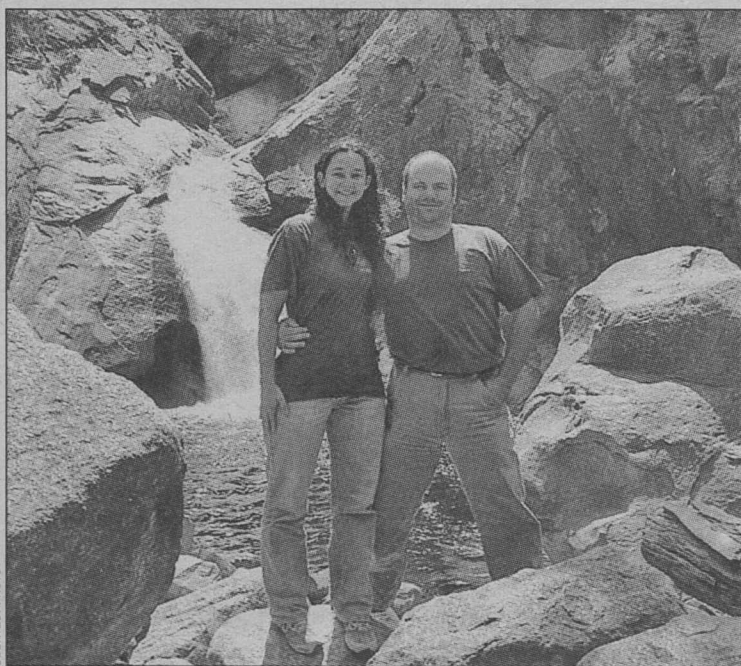
Hometown: Detroit

Education: B.S., 1992, University of Michigan; M.A., 1995, Utah State University; Ph.D., 1998, University of Chicago

Courses taught: "Experimental Ecology Laboratory," "Community Ecology" and "Ecology"

Spouse: Tiffany Knight, Ph.D., assistant professor of biology

Little-known fact: Chase was captain of his high-school football team and played end and linebacker.



Jonathan M. Chase with his wife, Tiffany Knight.