Complete genome of corn sequenced by WUSTL scientists

**By Caroline Arrabas**

In recent years, scientists have decoded the DNA of humans and a menagerie of creatures but none with genes as complex as a stalk of corn, the latest genome to be unraveled.

A team of scientists led by The Genome Center at the School of Medicine published the completed corn genome in the Nov. 20 Journal Science, an accomplishment that will aid efforts to develop better, more varieties to meet the world's growing demands for food, livestock feed and fuel.

"Seed companies and maize genetists will pounce on this data to find their favorite genes," said senior author Richard K. Wilson, Ph.D., professor of genetics and of molecular microbiology, director of The Genome Center and leader of the multi-institutional sequencing effort.

"Now they'll know exactly where those genes are. Having the complete genome in hand will make it easier to breed new varieties of corn that produce higher yields or are more tolerant to extreme heat, drought or other conditions," Wilson said.

Corn, also known as maize, is the top U.S. crop and the basis of products including breakfast cereal, toothpaste, shoe polish and ethanol.

The corn genome is a hodgepodge of some 32,000 genes crammed into just 10 chromosomes. In comparison, humans have 20,000 genes dispersed among 23 chromosomes.

Genome was sequenced at the University's Genome Center. The overall effort involved more than 150 U.S. scientists with those at the University of Arizona, Cold Spring Harbor Laboratory in New York, and Iowa State University playing key roles.

The group sequenced a variety of corn, known as B73, developed at Iowa State decades ago. It is known for its high grain yields and has been used extensively in both commercial corn breeding and research laboratories.

The genetic code of corn consists of 2 billion bases of DNA, the chemical language that are represented by the letters T, C, G and A, making it similar in size to the human genome, which is 2.9 billion.

**By Melody Walker**

Positive third-quarter economic indicators have been touted with cheers and proclamations that the "Great Recession" is over, but Steven Fazzari, Ph.D., professor of Economics, Government, and Public Policy, is not convinced that the "Great Recession" is over, for the next few years if America returns to the way it did before the recession.

With consumer spending accounting for 70 percent of the gross domestic product (GDP), he considers it a "matter of arithmetic" that the economy will stagnate over the next few years if American households curtail their spending and borrowing to repair their balance sheets.

"We may see a recovery here or there," Fazzari said. "But there is no obvious source of medium-term sales growth for businesses in the next few years to replace the recent consumption bomb." Fazzari documents the extended consumer spending spree that fueled economic growth in a paper published last year with recent WUSTL graduate Barry Cynamon titled "Household Debt in the Consumer Age — Source of Growth and Risk of Collapse."

The research shows how consumer spending was accompanied by a dramatic rise in household indebtedness over the past 20 years. "We were funding consumption with unsustainable growth in household debt," Fazzari said.

His research argued that household spending created a source of growth for the economy but he also predicted a risk of collapse due to excessive debt — a forecast that proved to be prescient of the massive home foreclosures, bank defaults, and soaring unemployment.

**By Jessica Davis**

Thousands in the St. Louis community will benefit from the generosity of Washington University’s faculty, staff and retirees.

The University has raised $600,668 in its United Way of Greater St. Louis campaign, surpassing its stated goal of $600,000.

"I am deeply appreciative of all of those in the St. Louis community who chose to give to the United Way this year," Chancellor Mark S. Wrighton said. "It is very touching to see so many people willing to lend their support to those in our community who need it most."

WUSTL’s campaign kicked off in September and reached its targeted dollar amount in mid-November, helping the United

**By Melody Walker**

Positive third-quarter economic indicators have been touted with cheers and proclamations that the "Great Recession" is over, but Steven Fazzari, Ph.D., professor of Economics, Government, and Public Policy, is not convinced that the "Great Recession" is over, for the next few years if America returns to the way it did before the recession.

With consumer spending accounting for 70 percent of the gross domestic product (GDP), he considers it a "matter of arithmetic" that the economy will stagnate over the next few years if American households curtail their spending and borrowing to repair their balance sheets.

"We may see a recovery here or there," Fazzari said. "But there is no obvious source of medium-term sales growth for businesses in the next few years to replace the recent consumption bomb." Fazzari documents the extended consumer spending spree that fueled economic growth in a paper published last year with recent WUSTL graduate Barry Cynamon titled "Household Debt in the Consumer Age — Source of Growth and Risk of Collapse."

The research shows how consumer spending was accompanied by a dramatic rise in household indebtedness over the past 20 years. "We were funding consumption with unsustainable growth in household debt," Fazzari said.

His research argued that household spending created a source of growth for the economy but he also predicted a risk of collapse due to excessive debt — a forecast that proved to be prescient of the massive home foreclosures, bank defaults, and soaring unemployment.

**By Jessica Davis**

Thousands in the St. Louis community will benefit from the generosity of Washington University’s faculty, staff and retirees.

The University has raised $600,668 in its United Way of Greater St. Louis campaign, surpassing its stated goal of $600,000.

"I am deeply appreciative of all of those in the St. Louis community who chose to give to the United Way this year," Chancellor Mark S. Wrighton said. "It is very touching to see so many people willing to lend their support to those in our community who need it most."

WUSTL’s campaign kicked off in September and reached its targeted dollar amount in mid-November, helping the United

**Record to go all-electronic**

The Record, which is distributed in both print and digital formats, will go entirely digital in January 2010 to improve timely communications to the University community and to reduce printing costs.

The last issue of the print Record will be Dec. 10. The Record will resurface in its all-digital format when classes resume in January.
Volleyball

WUSTL has 17 team national titles — from Page 1

match overall. "That's the way you can serve tough, that means you put the other team's setter run the offense, from Page 1

it kept them from using their fast options." net, and it kept them from using their fast options.

"I also would like to thank our campaign leaders and volunteers for their hard work and support of this campaign," Premat said. "WUSTL has reached its goal, it will continue to accept pledges throughout the year. Employees are encouraged to pledge online through HRM's Self Service. Please be sure to check the box to make your donation secure. To pledge by phone, call 935-5028. Last year's WUSTL drive raised more than 567,576, exceeding the stated goal of $600,000, and the United Way of Greater St. Louis raised $684 million in 2008. Ninety percent of contributions go to the United Way of Greater St. Louis — one of the country's highest assistance rates — go directly to nearly 200 organizations that provide services for the entire region.

"With both teams, it was an amazing experience, from Page 1

"I think for the other girls as well," she said.

"It's been an amazing experience, from Page 1

"With both teams, it was an amazing experience, from Page 1

It's been an amazing experience, from Page 1

Genome

Corn plant has more than one genome — from Page 3

letters long. But that's where much of the similarity ends. The challenge for Wilson and his colleagues was to string together the order of the transposons, that move from place to place. The researchers revised the number of genes to 33.

"Sequencing the corn genome was like driving down miles and miles of distant highways with only sporadically placed sign posts," said co-investigator Steven Clifton, Ph.D., research associate professor of genetics. "We had a rudimentary map to guide us, but because of the repetitive nature of the genome, some of the landmarks were erroneous. In fact, the map required many additional methods of genotyping to identify the correct placement of the genes."

Interestingly, just a few genes were more than one sequence, and corn is no exception. The new genome is composed of two separate genotypes and differs from previous analyses of many genes. As corn evolved over many thousands of years, some of the duplicated genes were lost and others were shuffled around. A number of genes took on new functions.

"Corn is the third cereal-based crop after rice and sorghum — and the largest plant genome to date — to have its genome sequenced, and scientists now will be able to look for genetic similarities and differences between the crops. For example, rice grows really well in standing water, but corn doesn't," said co-investigator Robert Fulton, research instructor in genetics. "Now, scientists can compare the two genomes to find variations of corn genes that are more tolerant to wet conditions."

The United States is the world's top corn producer, producing 44 percent of the global crop. In 2009, U.S. farmers are expected to grow 9.5 billion bushels of corn, according to the U.S. Department of Agriculture.

The corn genome data is freely available to the public at maizesequence.org.

WUSTL Dining Services to serve CIW grape tomatoes

Washington University Dining Services will only serve Florida tomatoes grown on farms that have agreed to a code of conduct for ethical treatment of workers, from Page 3

the first food service company in the country to sign the agreement with the CIW. The new tomato policy follows in the spirit of ethically, from Page 3

and economically responsible practices established by Dining Services, from Page 3

"Sign the code of conduct online to help ensure that the code of conduct is followed," Florida grower Alkman Farms became the first company to sign the code of conduct and is the only company that will supply tomatoes to Bon Appétit's Washington University account. The Dining Services obtains tomato varieties from many farms, from Page 3

meaning that other varieties of tomatoes will be available on the Darford Campus for the next few months. Dining Services chefs have crafted alternative menu items to pair with the grape tomatoes, including sweet and sour spiced tomato relish and grape tomato salsas and adding spinach and red peppers as a side dish to a late summer and early fall salad. For more information, call Jill Duncan at 935-3623.

University College to host springPreview Night Dec. 10

University College, the evening and summer program in Arts and Science, will host a Preview Night at 7 p.m. on Dec. 10 in Holmies Lounge in Ridgley Hall. Preview Night features speakers who will discuss class and program offerings, admissions requirements and financial aid. Spring semester classes at University College start Jan. 19, 2010. "Preview night is the latest in an impressive run for WUSTL, from Page 1

students and faculty, program coordinators and University College advisors to provide information and reflection on all aspects of the adult education experience: academics, programs, from Page 1

Campus for the next few months. Performing artists who will discuss class and program offerings, admissions requirements and financial aid. Spring semester classes at University College start Jan. 19, 2010.

"WUSTL is the first food service company in the country to sign the agreement with the CIW. The new tomato policy follows in the spirit of ethically, from Page 3

"Sign the code of conduct online to help ensure that the code of conduct is followed," Florida grower Alkman Farms became the first company to sign the code of conduct and is the only company that will supply tomatoes to Bon Appétit's Washington University account. The Dining Services obtains tomato varieties from many farms, from Page 3

meaning that other varieties of tomatoes will be available on the Darford Campus for the next few months. Dining Services chefs have crafted alternative menu items to pair with the grape tomatoes, including sweet and sour spiced tomato relish and grape tomato salsas and adding spinach and red peppers as a side dish to a late summer and early fall salad. For more information, call Jill Duncan at 935-3623.

University College to host springPreview Night Dec. 10

University College, the evening and summer program in Arts and Science, will host a Preview Night at 7 p.m. on Dec. 10 in Holmies Lounge in Ridgley Hall. Preview Night features speakers who will discuss class and program offerings, admissions requirements and financial aid. Spring semester classes at University College start Jan. 19, 2010. "Preview night is the latest in an impressive run for WUSTL, from Page 1

students and faculty, program coordinators and University College advisors to provide information and reflection on all aspects of the adult education experience: academics, programs, from Page 1

Campus for the next few months. Performing artists who will discuss class and program offerings, admissions requirements and financial aid. Spring semester classes at University College start Jan. 19, 2010.

"WUSTL is the first food service company in the country to sign the agreement with the CIW. The new tomato policy follows in the spirit of ethically, from Page 3

"Sign the code of conduct online to help ensure that the code of conduct is followed," Florida grower Alkman Farms became the first company to sign the code of conduct and is the only company that will supply tomatoes to Bon Appétit's Washington University account. The Dining Services obtains tomato varieties from many farms, from Page 3

meaning that other varieties of tomatoes will be available on the Darford Campus for the next few months. Dining Services chefs have crafted alternative menu items to pair with the grape tomatoes, including sweet and sour spiced tomato relish and grape tomato salsas and adding spinach and red peppers as a side dish to a late summer and early fall salad. For more information, call Jill Duncan at 935-3623.

University College to host springPreview Night Dec. 10

University College, the evening and summer program in Arts and Science, will host a Preview Night at 7 p.m. on Dec. 10 in Holmies Lounge in Ridgley Hall. Preview Night features speakers who will discuss class and program offerings, admissions requirements and financial aid. Spring semester classes at University College start Jan. 19, 2010. "Preview night is the latest in an impressive run for WUSTL, from Page 1

students and faculty, program coordinators and University College advisors to provide information and reflection on all aspects of the adult education experience: academics, programs, from Page 1

Campus for the next few months. Performing artists who will discuss class and program offerings, admissions requirements and financial aid. Spring semester classes at University College start Jan. 19, 2010.

"WUSTL is the first food service company in the country to sign the agreement with the CIW. The new tomato policy follows in the spirit of ethically, from Page 3

"Sign the code of conduct online to help ensure that the code of conduct is followed," Florida grower Alkman Farms became the first company to sign the code of conduct and is the only company that will supply tomatoes to Bon Appétit's Washington University account. The Dining Services obtains tomato varieties from many farms, from Page 3

meaning that other varieties of tomatoes will be available on the Darford Campus for the next few months. Dining Services chefs have crafted alternative menu items to pair with the grape tomatoes, including sweet and sour spiced tomato relish and grape tomato salsas and adding spinach and red peppers as a side dish to a late summer and early fall salad. For more information, call Jill Duncan at 935-3623.

University College to host springPreview Night Dec. 10

University College, the evening and summer program in Arts and Science, will host a Preview Night at 7 p.m. on Dec. 10 in Holmies Lounge in Ridgley Hall. Preview Night features speakers who will discuss class and program offerings, admissions requirements and financial aid. Spring semester classes at University College start Jan. 19, 2010. "Preview night is the latest in an impressive run for WUSTL, from Page 1

students and faculty, program coordinators and University College advisors to provide information and reflection on all aspects of the adult education experience: academics, programs, from Page 1

Campus for the next few months. Performing artists who will discuss class and program offerings, admissions requirements and financial aid. Spring semester classes at University College start Jan. 19, 2010.

"WUSTL is the first food service company in the country to sign the agreement with the CIW. The new tomato policy follows in the spirit of ethically, from Page 3

"Sign the code of conduct online to help ensure that the code of conduct is followed," Florida grower Alkman Farms became the first company to sign the code of conduct and is the only company that will supply tomatoes to Bon Appétit's Washington University account. The Dining Services obtains tomato varieties from many farms, from Page 3

meaning that other varieties of tomatoes will be available on the Darford Campus for the next few months. Dining Services chefs have crafted alternative menu items to pair with the grape tomatoes, including sweet and sour spiced tomato relish and grape tomato salsas and adding spinach and red peppers as a side dish to a late summer and early fall salad. For more information, call Jill Duncan at 935-3623.
School of Medicine Update

Recovery act funds new flu drug discovery center

By Milly G. Miller

Earlier this year, the School of Medicine brought together representatives from each department to launch a school-wide energy-awareness drive. But the group’s enthusiasm and ideas led it to go beyond its normal focus to the broader realm of sustainability.

The Sustainability Awareness Committee (SAC), now headed by Jerry Pinkner, research lab manager in molecular microbiology, has been hard at work on several initiatives. The subcommittee, headed by Jerry Pinkner, research lab manager in molecular microbiology, has also launched a pilot recycling program that will fill half of the regular trash Dumpster if the same level of savings is achieved.

The subcommittee, working with Ivory Reed Jr., director of support services, has launched a pilot recycling program that will fill half of the regular trash Dumpster if the same level of savings is achieved.

Energy savings drive evolves to sustainability

Jerry Pinkner, research lab manager in molecular microbiology, with 2 limes of bottles collected from three labs to be recycled. This amount of cardboard would fill half of the regular trash Dumpster.

Jerry Pinkner, research lab manager in molecular microbiology, with 2 limes of bottles collected from three labs to be recycled. This amount of cardboard would fill half of the regular trash Dumpster.

In past research, we've shown that flu vaccines can defeat flu viruses in mice and in human cells by genetically modifying the interferon-signaling pathway so that it's more effective in fighting viral infections, said Holtzman, the Selma and Herman Seldin Professor of Medicine and director of the Division of Pulmonary, Critical Care Medicine. "So now we are trying to develop drugs that would mimic the effects that we saw in mice and cells."

Interferon signaling is one of the main ways the body stops virus infections. Interferons secreted by infected cells set off a series of responses that activate virus-blocking immune cells and help them from repairing virus infection. Then scientists studied which genes become more active in mice and in human cells when they enhanced the interferon-signaling pathway. With the new funding, they are taking the next step and building automated systems to test for drugs that may potentially enhance the effect of turning on those genes.

"We call it genome-guided drug screening — a new method of drug development that is being done in very few places in the world," Holtzman said. "We're putting together a specialized high-throughput system using robotic equipment that can quickly scan many different compounds." Holtzman and his colleagues are defining the body's response to the 2009 H1N1 virus. They are using human airway cells grown in the laboratory to understand how the virus is pathogenic and what is unique about its way of infecting the host.

"The virus has a way of subverting the body's anti-viral response," Holtzman said. "By analyzing the genes whose activity changes when the virus infects cells, we can find genes responsible for infection and resistance."

This information will feed into the genome-guided drug screening system to identify drugs effective against the 2009 H1N1 flu virus.

Mutation linked to pediatric brain tumor may pave way for targeted treatment

By Michael C. Purdy

School of Medicine researchers have linked mutations in a gene to a benign pediatric brain tumor, a finding that will help scientists seek drug treatments that block growth of the tumors.

"Now that we understand the signature mutation in these common pediatric tumors, we can think about designing treatments that alter the pathway that gene controls," said David H. Gutmann, M.D., Ph.D., the Donald O. Schmick Professor of Neurology. "That's important because right now we have few treatments tailored to this tumor type."

Gutmann normally studies the tumors, known as plexiform astrocytomas, in the context of neurofibromatosis I (NF1), an inherited condition that is one of the most common tumor predisposition syndromes. But in plexiform astrocytomas also occur sporadically in patients who do not have the NF1 mutation at a rate of about two to three new cases per 100,000 children per year.

To learn whether either condition could shed light on the other, Gutmann's team performed detailed genetic and genomic analyses of tumor samples from 76 patients with sporadic plexiform astrocytomas and nine patients with NF1. The results appeared in a recent issue of Neurology.

As an early lead in the sporadic tumors to a gene known as HIF2a in a small region of chromosome 7 didn't pan out, but it led the researchers to the nearby BRAF gene, which previously had been linked to other cancers.

"BRAF was a particularly enticing target because the signal- ing pathway it controls is also controlled by neurotransmitters, the protein made by the gene that is mutated in patients with NF1," said Gutmann, director of the Washington University Neurofibromatosis Center. "This finding provides support for a number of drugs that are already being tested for their ability to control the growth of other cancers.

The School of Medicine will host the Sixth Annual Art Show from Jan. 16-Feb. 11, 2010, in the Farrell Learning and Teaching Center. The show is composed of works done by School of Medicine students, faculty and staff. Anyone interested in submitting work should contact Andrew Lee at stluart@wustl.edu. The deadline to submit work is Jan. 8, 2010.

Outlook for H1N1

Alexander Garza, M.D., assistant secretary for health affairs and chief medical officer for the U.S. Department of Homeland Security, has spoken about the H1N1 flu pandemic to faculty, staff and students Nov. 18 at the Farrell Learning and Teaching Center. Garza, a St. Louis native, discussed the role the Department of Homeland Security plays in the national response to H1N1 as well as the outlook for the outbreak.
Students perform "Nocturnal Landscapes," a modern piece choreographed by Mary-Jean Cowell, coordinator of the Dance Program in Arts & Sciences, that explores dream-like images. The dance is one of seven to be performed at the annual Washington University Dance Theatre.

By LAM OTTEN

Washington University Dance Theatre (WUDT), the annual showcase of professionally choreographed work performed by student dancers, will present "Transmocial," this weekend in the Edison Theatre.

Performances are at 8 p.m. Friday and Saturday, Dec. 4 and 5, and at 2 p.m. Sunday, Dec. 6. The concert is sponsored by the newly formed Arts Department (PAD) in Arts & Sciences. Features more than three dozen student dancers, selected by audition, in seven original works by faculty and guest choreographers. Pieces range from ballet and contemporary dance, to drawings on Chinese and Native American traditions.

Gred Slaughter, senior lecturer in dance and director of WUDT, said that the theme for this year's concert grew out of conversations among the dance faculty. "As the individually diverse, we all interested in this idea of using dance and movement as a tool for communication," Slaughter said. "Transmocial reflects a collective sense of crossing cultural borders and boundaries, as a way to say something about the evolution of our personal perspective on the world.

The concert will feature five faculty works as well as two pieces choreographed by a pair of distinguished visiting artists.

Paula Weber, chair and professor of dance at the University of Missouri-Kansas City, recently set "Souls Intertwined," a contemporary ballet work for eight dancers and one actor and body performer. Weber has been a soloist with the Lyric Opera of Chicago and a principal dancer with the Milwaukee Ballet. She also has worked with many of today's most renowned choreographers, including Bill T. Jones, Laura Dean, Charles Moulton and Kevin Jeff. She is a member of the Williams/Henry Dance Theatre as well as principal dancer/ballet mistress with the Albany Berkshire Ballet.

Rulan Tanen, director of DANCING EARTH — Indigenous Contemporary Dance Creation in Santa Fe, N.M., worked with 12 students to set a new dance exploring the iconography of ancient Cakchiquel — the largest and most influential Native settlement north of Mexico, situated just east of present-day St. Louis. She is also known as an innovator of Balinese line techniques and postmodern.

"In many ways, Rulan's work epitomizes what 'Transmocial' is all about," Slaughter said. "As a choreographer, she draws on her own cultural experiences and cultural background. Yet, at the same time, she also incorporates elements from other dance idioms, such as modern, ballet and contemporary.

'She's literally dancing across concepts and cultures,' Slaughter said. Also on the program are:

• "Nocturnal Landscapes," Mary-Jean Cowell, associate professor and coordinator of the Dance Program in Arts & Sciences, choreographed mysterious, occasionally wistful modern work for eight dancers, which explores nocturnal associations and dream-like images. The piece is set to the music of Frederic Chopin, "Contretemps," from the "Liste des Variations du thème de Chopin."

• "Evolution of Our Personal Consciousness," choreographed by Assaf Shelleg, visiting Israeli choreographer, she draws on her training as a dancer and choreographer, as well as issues of assimilation, diversity and extinction. Many of these themes will be integrated into Tangent's "Of Bodies Of Elements," her full-length work on Native perspectives on food and agriculture in relationship to earth.

"In many ways, Rulan's work epitomizes what 'Transmocial' is all about," Slaughter said. "As a choreographer, she draws on her own cultural experiences and cultural background. Yet, at the same time, she also incorporates elements from other dance idioms, such as modern, ballet and contemporary.

'She's literally dancing across concepts and cultures,' Slaughter said.

For tickets or more information, call 935-4259.

In a portion of the activities being held Nov. 30-Dec. 16 at Washington University. Visit the WUArts Web site at www.wustl.edu/arts (noon until 8 p.m.) or University Events at www.wustl.edu/campus/. Call 935-4523 for a print calendar (while supplies last).

Exhibits

"Vast Aquatic: A Record of Life Through Art," through Feb. 4, Kemper Art Museum. 935-4523.


"Souls Intertwined," a contemporary work for eight dancers, set to music by Frederic Chopin, "Contretemps," from the "Liste des Variations du thème de Chopin."

"Regulating and Targeting V(D)J Recombination and Somatic Hypermutation for Eight Dancers, which explores, for 16 dancers, set to music by Frederic Chopin, "Contretemps," from the "Liste des Variations du thème de Chopin."

"Evolution of Our Personal Consciousness," choreographed mysterious, occasionally wistful modern work for eight dancers, which explores nocturnal associations and dream-like images. The piece is set to the music of Frederic Chopin, "Contretemps," from the "Liste des Variations du thème de Chopin."


"Souls Intertwined," a contemporary work for eight dancers, set to music by Frederic Chopin, "Contretemps," from the "Liste des Variations du thème de Chopin."


"Evolution of Our Personal Consciousness," choreographed mysterious, occasionally wistful modern work for eight dancers, which explores nocturnal associations and dream-like images. The piece is set to the music of Frederic Chopin, "Contretemps," from the "Liste des Variations du thème de Chopin."

"New Dance Exploring the Iconography of Ancient Cakchiquel." Viewed by 12 students with 12 students.


"Souls Intertwined," a contemporary work for eight dancers, set to music by Frederic Chopin, "Contretemps," from the "Liste des Variations du thème de Chopin."


Holiday tradition alive on campus with annual ‘Messiah’ sing-along Dec. 6

The Department of Music in Arts & Sciences will present its annual sing-along of George Frederic Handel’s “Messiah.” At 3 p.m. Sunday, Dec. 6, in Graham Chapel.

John Stewart, director of vocal activities, directs the program.

The performance, which lasts about an hour, will include the Christmas portion of “Messiah” as well as the “Hallelujah Chorus.” Those who wish to participate in the sing-along may sit in special sections arranged according to voice type (soprano, alto, tenor, baritone), although those who choose to sing also are welcome to attend. Copies of the music will be available for those who do not bring their own scores.

Singers for the performance will include sopranos Stephanie Bailey and Sarah Shipkowski, both second-year graduate students in the Department of Music; mezzo-soprano will be Debra Hillbrand, with tenor Keith Boyer. Baritone will be Tom Stillit, also a second-year graduate student. William Partridge of the J贝 campus organist, will provide the instrumental accompaniment.

The concert is free and open to the public. For more information, call 935-5566 or e-mail kschultz@wustl.edu.

Women’s soccer advances to final four

With a 2-1 victory over Calvin College Nov. 22, the No. 17-ranked women’s soccer team advanced to its second final four in school history.

The team travels toSan Antonio Friday, Dec. 4, to play No. 21 Lynchburg College (17-3-4) at 1:30 p.m. The winner of that will take on the winner of the match between No. 9 College of New Jersey (16-2-5) and No. 1 Messiah College (18-0-1) for the NCAA Division III women’s soccer championship.

The championship game is slated for 1 p.m. Saturday, Dec. 5, in San Antonio.

In the victory over Calvinsenior A. Lee Ann Fiddler scored the game-winning goal in the 57th minute, as she one-timed a cross from senior Caryn Rosoff for her sixth goal of the year.

Freshman goalkeeper Clara Jaques picked up her 16th win of the season in goal for making seven saves. The victory for Jaques moves her into eighth place on the all-time WUSTL list in first shutouts. The Bears’ overall record of 17-5-2 ties the school record for victories in a season. WUSTL also won 17 games in 1997, 98, 2004, and 1976.

Cross country teams finish in top 10

Both the men’s and women’s cross country teams qualified to compete in the NCAA Division III championships in Cleveland Nov. 14, with each squad turned in a top 10 finish.

Sophomore Michael Burnstein paced the WUSTL men in a surprising seventh-place finish at the national meet. With a time of 35:56.4, Burnstein finished 20th and earned All-America honors for the first time in his career.

In a matter of seven days, the men’s team vaulted from being unrated nationally to posting the best national finish for any men’s cross country team in school history. The men’s squad was awarded in the NCAA championships for just the 4th time in school history and the first since 2006. Junior Carty Surtees helped the women to a 10th-place overall finish, an improvement over last year’s 12th-place finish. Surtees garnered All-America honors for the second time, as she placed 20th overall with a time of 22:536.

“This is probably the greatest day in school history for the Wustl/University of Missouri, cross-country program,” head coach Jeff Stiles said after the competition. “I would gladly give up a national championship to have both teams come to the national meet and compete and do well.”

“Our women’s team has had national success recently, but without the team qualifying, too, so this means a lot to have them both here and do well,” Miles said.

Their appearance at the meet also was the first time since 2006 WUSTL had both its cross country teams compete in the national championship meet in the same year.

Women win McWilliams Classic

The women’s basketball team captured its 11th annual McWilliams Classic tournament title with an 82-62 win over Rhodes College Nov. 7 at the WU Field House.

Senior point guard Alex Hovis, who scored 17 points in the tournament championship game, earned the Jacqueline Nickell Schupp Most Valuable Player award.

Joining Hovis on the all-tournament team were graduate student Jamie McFarlin and senior Zoe Unruh.

McFarlin had eight points with eight rebounds against Rhodes; while Unruh tallied 12 points, eight rebounds and three assists in the championship game.

The Bears advanced to the McWilliams final with a 75-77 win over Rose-Hulman Institute of Technology Nov. 28.

WUSTL set a tournament record with 22 steals in the win over Rose-Hulman. The Bears (4-1) return to action on Dec. 2 at Elmhurst College in Chicago.

Men’s basketball captures Titan Tip-Off

The men’s basketball team posted victories over Ohio Wesleyan University (85-68) and Illinois Wesleyan University (67-61) to capture the 2009 Titan Tip-Off Tournament championship in Bloomington.

Senior guard Aaron Thompson led his career-high with 31 points in the championship game over Illinois Wesleyan.

Thompson, who was joined on the all-tournament team by graduate student Sean Wills, was 12-of-20 from the field and hit nine of those from three-point range.

Thompson averaged 29.5 points in five games in the tournament, while Wills averaged 12 points and 8.5 assists per game.

On Stage

Friday, Dec. 4

E.M. Center, 935-4705.

Friday, Dec. 4

E.M. Center, 935-4705.

Freshman Clara Jaques was in goal for 16 of the Bears’ 17 victories this season.
Law school announces six semester tax LL.M.

The School of Law recently became the first law school to allow students to earn both a law degree and a master of laws in taxation in six semesters without taking a summer course. By not requiring a summer course, the School hopes to attract more students interested in this joint degree program and continue to take advantage of summer employment opportunities while earning the J.D. and the LL.M. in three years.

University switchboard changes hours

As of Dec. 1, the Washington University switchboard — which can be reached by calling the University's main line at 935-5000 — is being updated to manage a rigorous course of study in tax-related courses — the same requirements as for the students’ coursework in the Taxation Program. This information is provided as a public service to promote safety and awareness is available on the University Police Web site at police.wustl.edu.

Olin Cup finalists in race for funding new businesses

By MELODY WALKER

A record number of aspiring entrepreneurs flocked to Washington University this fall to take advantage of a rigorous course of study in the School of Engineering & Applied Science and the Olin College of Business in an effort to commercialize a variety of technologies that have come through academic science labs.

"This new program is a great opportunity for our students who accept permanent employment outside of St. Louis, and, therefore, cannot take advantage of our current seven-semester LL.M. option," said Mary Perry, J.D., director of the LL.M. in Taxation Program and assistant dean for adjunct faculty. "It also offers students who participate in the program the competitive advantage of having a tax LL.M. in hand when they graduate."

"To earn the additional degree, students must take eight credits beyond those required for the J.D. and the students’ coursework in the Taxation Program includes several Income Tax and 24 additional qualifying credits to pass course examinations — the same requirements as for the traditional one-year LL.M. in Taxation degree.

For more than 40 years, the tax LL.M. at the School of Law has served a rigorous course of study in the field of tax law.

"Employers like to see a more focused curriculum in tax law than the traditional course," said Michael Spevay, assistant dean for career services.

"Students interested in the tax field should find this program highly beneficial to their job search."

"Additionally, the ability to complete internships over the summer allows a way for students to start their legal careers without the usual expenditure,

For more information, contact Grarup at 935-9835.

Becker a finalist for Rhodes Scholarship

By NEIL SCHROENNER

Emily Becker, a junior majoring in history and Near Eastern studies with a minor in English, both in Arts & Sciences, has been named a Rhodes Scholarship finalist for 2009. Becker, 22, is one of 32 students to advance to the Rhodes Scholarship final round, where judges will select 16 Rhodes Scholars.

"Emily has an incredible work ethic and a wonderful passion for her work. She always puts her best foot forward and is always ready to take on new challenges. She is a true scholar and a true leader. I am very proud of her," said Joy Becker, associate dean of students.

Becker worked for two years as a research assistant at the Washington University Institute for Peace and Conflict Resolution in Saint Louis, and, therefore, has much to be proud of, she said. "I know she will accomplish many great things after she leaves the University.

"The judges, audience and I were very impressed with the quality of this year’s pitches," Harrington said. "We are very pleased with the quality of this year’s candidates."

"The change aligns our switchboard hours to reflect the times of our students and faculty. By not requiring a summer course, the program will continue to take advantage of summer employment opportunities while earning the J.D. and the LL.M. in three years.

"The economy bottomed at the end of the first quarter of this year, and, therefore, the middle-class is tapped out now; it's going to be any different from what happened in the economic crisis of 2008. Failures and collapse of the credit markets, rising energy costs, rising health care costs, and the governmental bailouts in response to the global economic crisis of 2008. "Consumer-fueled growth was coming to an end with a lot of stimulus for the economy. For many, the American economy is tapped out now; they no longer have the resources they can. They're cutting back because they have no choice. I don't know how long they can continue building up to this point."
Nov. 1, 2009, at McKnight Place Extended
Warren M. Shapleigh, a member of the
University is stronger today because of his
Chancellor Mark S. Wrighton said. "Our
honorary degree and undergraduate
tees, including development, real estate,
He will be deeply missed."

Union for Conservation of
Leipzig, Germany. Her research
Introducing new

Shapleigh was elected to the board in
2007-08. He served as its chair from
1988-89. Shapleigh was named
director of the 
Medicine Interest

and Reinvestment Act ...
Dong Qin, Ph.D., research
associate professor of
environmental and chemical engineering,
has received a two-
year, $390,000 subaward from
Cornell University for research
titled "National Nanotechnology
Infrastructure Network (NNI)-
CAP Equipment ONI: This grant is
supported by the American Recovery
and Reinvestment Act ...

Of note

Shapleigh also helped spearhead the
fund-raising initiative for what would
become the Sam Fox School of Design
at the University for Arts & Sciences,
offering students a two-
year, $203,464 grant from the
National Institutes of General 
Medicine for research
titled "Assembly and Stability of 
Protein Complexes." This grant is
supported by the American Recovery
and Reinvestment Act ...
The Sened family on a vacation to Toscana, Italy: Itai Sened (left) corrals his 8-year-old son Yosef while enjoying a hike from daughter Haghar. 18-year-old son Yaniv (center), 24 books on his younger sister, 20-year-old daughter, Mayak. 2. His wife, Sarit Smila (right), a recent WUSTL doctoral graduate in philosophy, is an adjunct instructor at WUSTL.

By GERRY EvERING

‘Carrying on the mission’

Sened helps masters study new institutional social sciences

Sened eventually settled in Paris, where he took a job as a delivery boy for a company selling luxury goods to tourists. Over the next five years, he worked his way up to head of the company, all the while still working to support an eventual return to school to earn an undergraduate degree in political science and philosophy at Tel Aviv University.

While in Paris, he became deeply acclimated to French intellectual life, both inside and outside the university. He continued to work for the French national rail system, where he began to work with a group of young intellectuals new to the New Philosophers.

The Sened family on a vacation to Toscana, Italy: Itai Sened (left) corrals his 8-year-old son Yosef while enjoying a hike from daughter Haghar. 18-year-old son Yaniv (center), 24 books on his younger sister, 20-year-old daughter, Mayak. 2. His wife, Sarit Smila (right), a recent WUSTL doctoral graduate in philosophy, is an adjunct instructor at WUSTL.