Four honorary degrees to be awarded at Commencement

One was named among the 50 most important women in science by Discover magazine; another made Time magazine’s list of the 100 most influential leaders in the world.

One is a pioneer and leader in mapping and sequencing the human genome; another guided the Olin Business School through a significant period of growth, helping it become a leading, nationally recognized business school.

The four notable alumni selected to receive honorary degrees during the 148th Commencement May 15 all stand out in their respective fields. During the ceremony, which will begin at 8:30 a.m. in Brookings Quadrangle, WUSTL also will bestow more than 2,700 academic degrees on more than 2,600 students. Wendy Kopp, chief executive officer and founder of Teach For America, will deliver the Commencement address and receive an honorary doctor of humanities degree.

The other honorary degree recipients and their degrees are:

• Robert L. Virgil, Ph.D., emeritus dean of the Olin Business School, emeritus professor of accounting and emeritus trustee, doctor of laws.
• Robert E. Waterston, M.D., Ph.D., the William H. Gates III Endowed Chair in Biomedical Sciences and chairman of the Department of Genome Sciences at the University of Washington in Seattle, doctor of science.
• Patty Jo Watson, Ph.D., the Edward Mallinckrodt Distinguished University Professor of Anthropology Emerita in Arts & Sciences, doctor of humane letters.

Twenty years ago, Kopp proposed, in her Princeton University undergraduate thesis, the creation of Teach For America — the national corps of outstanding college graduates who commit to teach for at least two years in some of the country’s highest-need schools and become lifelong leaders in pursuit of educational excellence.

Washington University and the Donald Danforth Plant Science Center have received two awards totaling $35 million from the Department of Energy (DOE) to do research on novel energy initiatives. At $20 million, the ‘The Washington University research award is the largest ever received on the Danforth Campus. The $15 million for the Donald Danforth Plant Science Center is the largest the organization has ever received.

Washington University and the Donald Danforth Plant Science Center will be home to one of 46 new multimillion-dollar Energy Frontier Research Centers (EFRC) announced April 27 by the White House in conjunction with a speech delivered by President Barack Obama at the annual meeting of the National Academy of Sciences. The EFRCs, which will pursue advanced scientific research on energy, are being established by the U.S. Department of Energy Office of Science at universities, national laboratories, nonprofit organizations and private firms across the nation.

As an EFRC, WUSTL will receive an initial award of $20 million from the DOE to establish the Photovoltaic Antenna Research Center (PARC) and study forms of energy based on the principles of light harvesting and energy funneling. Plans are to house the center at the Stephen F. and Camilla T. Brauer Hall, scheduled to open in 2011.

Robert E. Blankenship, Ph.D., the Lucile P. Markey Distinguished Professor in Arts & Sciences, will be director of the PARC program. Blankenship, also professor of biology and of chemistry, both in Arts & Sciences, will coordinate the efforts of 16 other principal investigators from around the world. Dewey Holden, Ph.D., professor of chemistry, will be associate director.

The center comes under the School of Engineering and Applied Science, which has received $15 million from the National Science Foundation for the portion of the PARC award that will be housed in its St. Louis campus. The $20 million awarded to WUSTL; $15 million to the Donald Danforth Plant Science Center

BY GENE ERISON

The search for the cause of an inherited form of a non-aggressive childhood lung cancer has uncovered important information about how the cancer develops and potentially sheds light on the development of other cancers.

The finding by researchers at the School of Medicine, Children's National Medical Center in Washington, D.C., the International Pleuropulmonary Blastoma Registry at Children's Hospitals and Clinics of Minnesota and other collaborating institutions adds the final link to the chain connecting the gene DICER1 to cancer development — something that had been suspected but until now not definitively demonstrated.

The results were presented April 19 at the 100th Annual Meeting of the American Association of Cancer Research. The study shows that some children with the rare cancer pleuropulmonary blastoma (PPB) are born with a deleterious mutation in DICER1, a master controller gene that helps regulate the expression of other genes. The children studied came from families with a history of PPB or related disorders.

PPB is the first malignancy found to be directly associated with inherited DICER1 mutations, making the cancer an important model for understanding how mutations and loss of DICER1 function lead to cancer," said lead author Dr. Ashley Hill, M.D., chief of pathology at Children's National Medical Center. "We now believe that PPB tumors arise from an unusual mechanism in which cells carrying mutations interact nearby cells to become cancerous without becoming cancerous themselves." Hill was principal investigator of the study, which began while she was on the School of Medicine faculty.

Only 50-60 cases of PPB are diagnosed each year worldwide. Most children with PPB are under age 5. The cancer progresses from air-filled lung cysts in the early stage to solid lung tumours in later stages. If detected in the earliest stage, 90 percent of patients can be cured.

Washington University in St. Louis

April 30, 2009
record.wustl.edu

University swine flu response

On April 26, the federal government declared a public health emergency as a result of several confirmed cases of swine flu in the United States. As of April 28, there had been no cases of swine flu reported on the WUSTL campus or elsewhere in Missouri and Illinois.

The University has called together the Emerging Infectious Disease Task Force to monitor the situation and keep the University community informed and provide updates as new information becomes available.

More information about WUSTL’s planning and preparedness for the swine flu emergency is available and will be regularly updated at emergency.wustl.edu.

WUSTL relies on emergency websites to coordinate the communication of information for students, faculty and staff and students check frequently for updates.

DOE makes largest research award in Danforth Campus history

$20 million awarded to WUSTL; $15 million to Donald Danforth Plant Science Center

BY TONY FITZPATRICK

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Genetic source of childhood cancer found

BY GENE ERISON

The search for the cause of an inherited form of a non-aggressive childhood lung cancer has uncovered important information about how the cancer develops and potentially sheds light on the development of other cancers.

The finding by researchers at the School of Medicine, Children’s National Medical Center in Washington, D.C., the International Pleuropulmonary Blastoma Registry at Children’s Hospitals and Clinics of Minnesota and other collaborating institutions adds the final link to the chain connecting the gene DICER1 to cancer development — something that had been suspected but until now not definitively demonstrated.

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see award, Page 7

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Women's Society presents leadership award, scholarship

By Jessica Daues

The Women's Society of Washington University has honored the legacy of two of the University's most revered women — Elizabeth Gray Danforth and Harriet K. Switzer — at its annual meeting April 15. The society presented the Harriet K. Switzer Leadership Award and the Elizabeth Gray Danforth Scholarship to two exemplary college students at the Franklin Lounge of the Ann W. Olin Women's Building.

Harriet K. Switzer Leadership Award

The Harriet K. Switzer Leadership Award was presented to WUSTL senior Kristi Tanouye, of New Lenox, Ill. She will graduate May 15 with a bachelor's degree in biomedical engineering. Tanouye has a 3.71 grade-point average and is a member of Alpha Eta Mu Beta, a biomedical engineering honor society, and Sigma Xi, a science honors society. She has conducted research on elbow implant usage in humans as well as the impact of diabetes on the structural and material properties of bone rat. She also has a tutelary for other engineering students.

Tanouye served as co-president (2007-08) of the Women's Engineering Program and as vice-president (2006-07) and president (2007-08) of the WUSTL Biomedical Engineering Society. Tanouye also was a member of Women Engineers' 2009 regional conference chair. She organized a speaker and networking session, social and business meetings for more than 200 students and professionals for the society's 2009 conference at Washington University.

Tanouye also manages the Edison Theatre Box Office. The Women's Leadership Award is presented annually to a young woman who has made a significant contribution to the lives of many friends and colleagues. "I'm humbled that you made this possible," she said.

Two Arts & Sciences department — Political Science and Psychology — are tied for No. 13 rank in 2009. Two specialties within those departments — political students and alumni and world-class faculty and staff, said Malandra R. Gupta, Ph.D., dean of Olin Business School and the Gerald and Robert L. Vogel Professor of Accounting and Management. Their collective, ongoing hard work will continue to enhance our fine business school.

Brown (tied for No. 14) is ranked No. 1 in the Department of Biomedical Engineering. "I am gratified and proud of our students, faculty and staff who have helped the School of Medicine remain in the top since 1987," he said.

A second of Ohm's principles are recognized for their excellence: The school's part-time program, the Professional MBA, is tied for No. 30, and the Executive MBA Program is tied for No. 19. "Each of our MBA programs is a respected leader in the market— an example of the strength of our students and alumni and world-class faculty and staff," said Malandra R. Gupta, Ph.D., dean of Olin Business School and the Gerald and Robert L. Vogel Professor of Accounting and Management. Our collective, ongoing hard work will continue to enhance our fine business school.

"We are proud of our students, faculty and staff who have helped the School of Medicine remain in the top since 1987. News began the rankings in 1987," said Larry J. Shapiro, M.D., executive vice chancellor for medical affairs and dean of the School of Medicine.

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A utomatic external defibrillators (AEDs) are being in- stalled in all 34 School of Medicine-owned buildings to improve a person’s chances of survival after sudden cardiac arrest. In the first phase of the pro- gram, researchers will place AEDs in 34 School of Medicine-owned buildings beginning in May. In addition, four AEDs will be pro- vided to the Protective Services Department, which already has three defibrillators in its fleet and on bicycles.

In buildings with large num- bers of employees, an AED will be placed on every floor near the elevators. Buildings with fewer employees will have one AED in the first-floor lobby near the ele- vator. Future phases will place AEDs in three of those dozen buildings.

More than 250,000 Americans die of cardiac arrest each year due to sudden cardiac arrest, or abnormal heart rhythms, according to the American Heart Association, and about half of those events occur outside of a hospital. A person in cardiac arrest generally has about 4 min- utes in which to receive life-saving defibrillation, which provides an electric shock to restore a heart’s normal rhythm. For every minute that passes without defibril- lation, the chance of survival decreases by 7 percent to 10 percent.

Mary Z. Taylor, director of patient safety for the Faculty Practice Plan at the School of Medicine, said AEDs are becoming more common in airports, malls and schools, and are easily and appropriate to install them in medical schools.

“As a leading medical center, Washington University has a commitment to excellence,” Taylor said. “It’s important that we have the life-saving devices accessible to our community.”

Age may determine success of assisted-hatching method

By Diana Duke Williams

Assisted hatching, a procedure that improves pregnancy rates during in vitro fertilization (IVF), does not affect outcomes in most women younger than 38 years old, ac- cording to School of Medicine researchers.

The findings are available online in the journal Fertility and Sterility and in print by January 2010.

IVF is the process of fertiliza- tion that combines an egg and sperm in a laboratory dish to produce a blastocyst, which becomes an embryo. In assisted or unassisted hatching, a physi- cian used a delicate procedure to aid the embryo along with the thickness of the outer layer in a process called hatching. In some groups in rates of spontaneous abnormalities or ectopic pregnancies.

“Before implanting in the uterus, an embryo must emerge from an outer layer in a process called hatching. In some women, this outer layer or shell appears thin or thick, especially as women age.”

In assisted hatching, a physi- cian was a delicate procedure to open the embryo’s shell to help break loose and attach to the walls of the uterus. This technique has been widely used by clini- cians since the early 1990s, but findings from previous studies of assisted hatching have been far from uniform, especially as women age.

Researchers from the School of Medicine and School of Nursing and Medicine have agreed to follow Richard Todd as director of child psychiatry.

J ohn N. Constantino, M.D., has been named the Blanche F. Ittleson Professor of Psychiatry and Pediatrics and director of the William Greenleaf Eliot Division of Child and Adolescent Psychiatry. Charles F. Zorumski, M.D., the Samuel B. Gore Professor of Psychiatry, professor of neurology and head of the Department of Psychiatry, made the announcement.

J ohn is a world leader in understanding the roots of autism and related disorders,” Zorumski said. “He also is an outstanding clinician and teacher, and I am pleased he has agreed to follow Richard Todd as director of child psychiatry.”

Constantino succeeds Todd, an interna- tionally known expert on the influences of genetics and environment on pre- diabetes in children, followed by a psychiatry residency and a fellowship in child psychiatry, all at Albert Einstein College of Medicine in the Bronx, N.Y. Following another postdoctoral re- search fellowship in psychiatric epidemiol- ogy at the School of Medicine, he joined the faculty at Washington University and the staff at St. Louis Children’s Hospital in 1993.

Constantino continues Todd’s interest in the interplay between the biology of diabetes and the development of behavioral and psychosocial problems in children with autism, abnormal aggression behav- ior, personality disorders, psychiatric complications of neurodevelopmental disorders and childhood psy- chiatric conditions that are resistant to standard therapies.

“His research focuses on genetic and environmental factors involved in social developmental disorders in children.”

Constantino received his undergraduate training at Cornell University in Ithaca, N.Y. He earned a medical degree from the School of Medicine in 1988 and completed an internship and residency in pediatrics, followed by a psychiatry residency and a fellowship in child psychiatry, all at Albert Einstein College of Medicine in the Bronx, N.Y. Following another postdoctoral re- search fellowship in psychiatric epidemiol- ogy at the School of Medicine, he joined the faculty at Washington University and the staff at St. Louis Children’s Hospital in 1993.

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“His research focuses on genetic and environmental factors involved in social developmental disorders in children.”

“My hope is that those findings will also change their practices.”

The people we train do not have to be health-care profession- als,” Taylor said. “Published stud- ies have shown that trained lay volunteers can safely use this video and use the AEDs safely and effectively. Even without any training at all, these units are easy to use, and the instructions are easy to follow. Initiating help immediately while awaiting Professional Services’ arrival could save a life.”
University video installation "Chew the Fat" to open

Rirkrit Tiravanija creates a space yet another art installation designed to blur lines between art and life, transforming museums and galleries into ephemeral social spaces for cookouts, meals, and hanging out.

Beginning May 4, the Mildred Lane Kemper Art Museum will showcase one recent project with its exhibition "Rirkrit Tiravanija: Chew the Fat," a multifaceted installation of works that includes a loose-knit group of 12 internationally known artists.


Tiravanija takes back upon the motivations and practices of diverse group, which was united primarily by Tiravanija's Curatorial Portrait by Rirkrit Tiravanija and a friendship that divided his time between New York, Berlin and Bangkok. He divides his time between New York, Berlin and Bangkok.

The exhibition will open with a reception at 7 p.m. May 8 and remain on view through July 27. Both the reception and exhibition are free and open to the public.

In conjunction with the exhibition, the museum will host a free screening of "Tidane: A Ritual for the Living" directed by Douglas Gordon and Philippe Parreno, at 5 p.m. June 26. For more information, visit kemperartmuseum.wustl.edu or call 314-453-4323.

Eclipse of the Gene • Urban Air Pollution • OVATIONS Show Preview

Visual artist Rirkrit Tiravanija (right) goes fishing with Carsten Holler in one of the many scenes from the documentary "Rirkrit Tiravanija: Chew the Fat" opening at Kemper Art Museum May 8.

"Chew the Fat" invites viewers to envision social spaces for cooking, eating and community that can be rapidly created and easily dismantled. The exhibition "Rirkrit Tiravanija: Chew the Fat" opens Friday, May 4, and runs through July 27. For more information, call 935-4523.


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Steam plant shuts down early this year

The University community is encouraged.

Burson named to new position in law

Charles Burson, J.D., has been named the School of Law’s first senior professor of practice. The new position is distinguished research and teaching, and will involve five senior scholars, including law. Burson is a former special counsel at Linklaters in London, where he worked full-time teaching, and from 2001 to 2004, he served as Dean of the School of Law.

Burson will join the School of Law faculty in the fall, having taught courses in English and Chinese law at Oxford University since 1990. He has also taught law at the University of Chicago School of Law and at the University of Michigan Law School.

Burson earned his law degree from the University of Michigan School of Law in 1986, and his undergraduate degree from the University of California, Berkeley, in 1982. He has been a visiting professor at the University of Chicago, the University of Michigan, and the University of California, Berkeley.

Burson is the founder and CEO of the Legal Education Institute, a non-profit organization that provides legal education and training to law students and professionals, and he is a member of the American Bar Association’s Section of International Law.

Burson previously served as a law clerk to the late Justice Stephen Breyer of the U.S. Supreme Court, and he has also been a visiting scholar at the New York University School of Law and the University of California, Berkeley.

Burson’s work focuses on the intersection of law, technology, and society, and he is particularly interested in the role of technology in the legal profession.

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ward to the exciting research that site of one of the EFRC centers," has chosen Washington U as the engineering; and Himadri B. environmental and chemical WUSTL principal investigators in director of I-CARES.

"It's exciting to see the impressive sharing of ideas among students of varying fields and disciplines," Curtis said. The graduate student experience is enhanced because of the many opportunities for professional development and leadership experience as well as social activities and professional networking," she said. Curtis and GPC Committee Chair Pia Banerjee, a doctoral student in psychology in Arts & Sciences, presented the Bridging GAPS awards at the for a complete list of awardees, visit record.wustl.edu/news/page/normal.1990.html.

"I was delighted to learn that both the Danforth Plant Science Center and WUSTL acknowledges that the Danforth Plant Science Center was selected for an ERF grant and look forward to working with them to make St. Louis a worldwide center for bioenergy research," Mark S. Wrighton said.

Photosynthesis transforms sunlight into chemical energy in plants and photosynthetic, bio-inspired systems. The way in which this energy transfer process can explain its extreme efficiency in that vast and complex photosynthetic system. The system is a conceptual framework for the photosynthesis research. The system is a conceptual framework for the photosynthesis research.

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When Brad Warner, M.D., arrived in 2007 as the new pediatric surgeon-in-chief at the School of Medicine and St. Louis Children's Hospital, it was a homecoming of sorts.

He grew up in University City and, as a teenager, volunteered on the emergency room and clinics of Jewish Hospital. It seemed that a surgical resident took Warner under his wing, inviting him into the operating room to observe surgeries. That experience was like a spark around dynamite for me," he says.

Warner’s return to St. Louis after more than two decades at the University of Cincinnati Medical Center and Cincinnati Children’s Hospital Medical Center has created a similar spark, reenergizing the pediatric surgery program. He has hired three additional pediatric surgeons, placed a renewed emphasis on research and transformed the pediatric surgery rotation into one that is highly ranked by medical students and residents. Along the way, Warner has earned high praise for his compassionate care to young patients and their families.

"He’s spectacular," says Timothy Eberlein, M.D., the Bixby Professor and chairman of the Department of Surgery. "Every facet of the job Brad has touched has changed for the better. He’s a superb mentor and role model for the students and residents. Many times I wonder how any one human being can do all the things that he does and do them so well. He’s made a huge impact on our pediatric surgery program."

Warm and engaging, Warner is widely regarded for his clinical expertise in pediatric cancer surgery and surgical procedures for inflammatory bowel disease and other gastrointestinal illnesses. He is attracted to the medical center’s rich academic environment, with its top-ranked medical school, children’s hospital and surgery department, all on the same campus.

"This environment has all the elements to produce the best pediatric surgery program in the country," he says.

Compassion for kids

Even as a preschooler, Warner knew he wanted to be a surgeon. Without patients on which to practice, he practiced home dead animals to dissection, much to his mother’s dismay. She was a nurse at St. Luke’s Hospital, and her stories about intriguing cases fed her son’s interest in medicine.

Warner earned a medical degree from the University of Missouri-Kansas City School of Medicine. He completed his surgical residency at the University of Cincinnati then surgery department chair-

He lived in the care of babies with the condition. During his fellowship, Warner decided then to focus his research on short-bowel syndrome. Although some children are born with shortened intestines, the condition more commonly caused by necrotizing enterocolitis, a gastrointestinal illness that primarily affects premature infants. The infection and inflammation that are hallmarks of the condition spread quickly, destroying part or all of the intestines.

"The babies will be feeding in the NICU. Then if a bowel issue occurs, we sometimes see that there is just no bowel left. In these cases, there is nothing we can do. It is a heartbreaker for everyone," Warner says. "A higher risk of necrotizing enterocolitis can remove the diseased bowel and sew the healthy parts back together. Interestingly, when a portion of the intestine is surgically removed, the intestine that remains shows this loss and tries to compensate by growing back, a process called adaptation.

"Warner is investigating this phenomenon in his laboratory. "We have a very good model to adapt response better, eventually we may be able to give patients growth factors or other agents to encourage their bowel to grow back after surgery." he says.

A good team

Warner’s wife, Barbara Warner, M.D., associate professor of pediatrics and a neonatologist at St. Louis Children’s Hospital, also was recruited to the medical school at the same time. The two met while he was a resident and she a medical student. In addition to caring for the babies, they also have a long-running research collaboration that centers on necrotizing enterocolitis.

"While the causes of the illness are unknown, the Warners have long suspected that it may be linked to an underlying injury or abnormality in the intestinal lining, which may influence the composition of the microbes that naturally colonize the gut after birth. Their partnership has explored the critical role of epithelial growth factor in necrotizing enterocolitis. Mice pups that lack the growth factor die soon after birth from a bowel infection that closely mirrors the human illness. The Warners have shown lower levels of the growth factor is high in human milk but not the formula. Interestingly, premature babies who are formula fed have a higher ratio of enteroctitis than those who are breast fed. The pair have found lower levels of the growth factor in babies with the condition.

"Brad Warner also specializes in the care of babies born with congenital diaphragmatic hernia, which affects one in every 2,000 U.S. born babies. The condition occurs when the developing parts of the chest cavity don’t fully develop, allowing abdominal organs to grow into the chest cavity. This crowds out the developing lungs and prevents them from growing properly. Most babies born with the condition must be placed on a heart-

breakdown, and surgery department chair-

man Josef Fischer, M.D. Blair St. Louis Children’s Hospital, it was a homecoming of sorts. He was a very memorable experience for me because I feel we offered everything possible for them, and it just didn’t work," he says.

"When you’re a pediatric surgeon, you have to give your patients and their families," says F. Sessions Cole, M.D., the Park J. White M.D., professor of Pediatrics and assistant vice chancellor for children’s health. "He’s a very compassionate surgeon, understanding, educational, research and adminis-

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"To do this, especially gratifying," Warner says. "Warner is highly admired not only by those in St. Louis but by former colleagues in Cincinnati for his generosity of ideas, un-

incredible and balance.

"His career serves as a superb example to students, resid-

"The babies will be feeding in the NICU. Then if a bowel issue occurs, we sometimes see that there is just no bowel left. In these cases, there is nothing we can do. It is a heartbreaker for everyone," Warner says. "A higher risk of necrotizing enterocolitis can remove the diseased bowel and sew the healthy parts back together. Interestingly, when a portion of the intestine is surgically removed, the intestine that remains shows this loss and tries to compensate by growing back, a process called adaptation.

"Warner is investigating this phenomenon in his laboratory. "We have a very good model to adapt response better, eventually we may be able to give patients growth factors or other agents to encourage their bowel to grow back after surgery." he says.

A good team

Warner’s wife, Barbara Warner, M.D., associate professor of pediatrics and a neonatologist at St. Louis Children’s Hospital, also was recruited to the medical school at the same time. The two met while he was a resident and she a medical student. In addition to caring for the babies, they also have a long-running research collaboration that centers on necrotizing enterocolitis.

"While the causes of the illness are unknown, the Warners have long suspected that it may be linked to an underlying injury or abnormality in the intestinal lining, which may influence the composition of the microbes that naturally colonize the gut after birth. Their partnership has explored the critical role of epithelial growth factor in necrotizing enterocolitis. Mice pups that lack the growth factor die soon after birth from a bowel infection that closely mirrors the human illness. The Warners have shown lower levels of the growth factor is high in human milk but not the formula. Interestingly, premature babies who are formula fed have a higher ratio of enteroctitis than those who are breast fed. The pair have found lower levels of the growth factor in babies with the condition.

"Brad Warner also specializes in the care of babies born with congenital diaphragmatic hernia, which affects one in every 2,000 U.S. born babies. The condition occurs when the developing parts of the chest cavity don’t fully develop, allowing abdominal organs to grow into the chest cavity. This crowds out the