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Washington University in St. Louis SCHOOL OF MEDICINE **ONE-STOP LEARNING** THE DEAN SPEAKS VOICEBOX VICTORY FALL 2003 Applying Genomics



Learning through the years Physiology lab experiment, circa 1958-59. The scientific tradition at the School of Medicine is part of Washington University's 150-year legacy of academic excellence—celebrated in grand style on September 14, 2003 (see pages 2-3). Nancy Newlin, Class of 1962, above, credits the university for her lifelong devotion to medicine (see page 28).

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Outlook

Create your own

LEGACY

See page 36

Class Notes Update 30s Yourself!

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2003!

Your name and legacy can endure

See page 36



Class Notes Update Yourself!

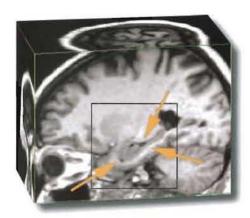
See the postage-paid reply card on page 36.



Outlook

Washington University School of Medicine
VOLUME XL • NUMBER 3 • FALL 2003

COVER Richard K. Wilson, PhD, professor of genetics and director of the Genome Sequencing Center, leads the charge to take the school's gene sequencing effort to the next level. Physician-scientists from across the university are coming together to share the technology and their ideas. For more on this story, please turn to page 17. PHOTO BY ROBERT BOSTON



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New executive vice chancellor for medical affairs and dean Larry J. Shapiro, MD, begins his "opportunity of a lifetime" and shares his vision for the school's future.

Learning at the Crossroads BY JULI LEISTNER

The new Farrell Learning and Teaching Center breaks ground—and barriers to learning—by providing students and faculty with a dedicated teaching facility.

Next in the Sequence BY DARRELL WARD AND HOLLY EDMISTON

The Genome Sequencing Center foments a second genetic revolution by applying sequencing data to the understanding and treatment of human disease.

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Cancer survivor Amy Hancock gains her voice—and some notoriety—by becoming the first person to undergo laryngeal reconstruction surgery in the United States.



2 School spirit: WUSTL's 150th anniversary celebration

Happy Birthday to

The School of Medicine holds an open house, joining the fun as Washington University celebrates its 150th birthday on September 14, 2003.



Julani Brown-El had the heart to play "Pin the Organ on the Body" as graduate student Aline Boos and dad Momar Brown-El look on.

"lcky" but true: Luke Starnes, third-year microbiology graduate student, shows Kaitlin Wright the germs on her hands at

the Young Scientist
Program's booth,
"How Hygienic
are You?"

Doctor! Doctor! Fourth-year medical student Walter Chan and first-year medical student Monica Ghei assist "Dr." Alexis Dallas and "surgeon" T.J. Lucas in the "Kids Corner."



A delicious pink treat awaits little Nicole Bi, daughter of Jiyan Ma, research associate in internal medicine.

> Jack Pierce, professor emeritus of medicine and former head of pulmonary medicine at Barnes-Jewish Hospital, enjoys an impromptu lunch with wife Susan.



The "Ses-quete"—a custom confection of frozen custard, chocolate chips and cherries

created by WUSTL Arts & Sciences alum Ted
Drewes, '51, tempted visitors. The Ses-quete's
contribution to physical well-being was duly
noted by medical students Sanjeev Vaishnavi and
Natasha Kasbekar, who offered free blood sugar
tests inside the Eric P. Newman Education Center.





First-year medical student Sahar Masoudi checks the blood pressure of Ravi Nadella.

SHAPING THE FUTURE

WU-STL!



The Center for Advanced Medicine sports a colorful balloon archway leading to festivities along Euclid Avenue.



Ever a proponent of a crackerjack medical education at WUSM, associate vice chancellor for admissions Ed Dodson surveys the snacks with first-year law student Anne Andrews and first-year medical student Brian Miller.

Chin up! WUSTL junior Sally Dolembo receives a posture assessment from physical therapy student Audrine Yu at the "Stand Up Straight!" event.





Jacob Lucas hones his surgical technique in the "Kids Corner."

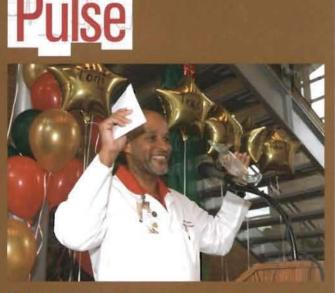


PHOTOS BY ROBERT BOSTON

150 150 IN ST. LOUIS

Jeans

1853-2003



Catch a guiding star Brian Rawls, cast technician from the Department of Orthopaedic Surgery, was chosen as the School of Medicine's 2003 Guiding Star. Rawls was honored for his clinical excellence, consistently exceeding day-to-day job responsibilities, and demonstrating an unwavering commitment to passionate and respectful patient care.

Biodefense research focus of new center

THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES recently announced that Washington University School of Medicine will anchor a multi-institutional Midwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research (MRCE). The center will be funded by a five-year, \$35 million grant from the National Institute of Allergy and Infectious Diseases (NIAID).

The founding MRCE members also include Saint Louis University School of Medicine, Case Western Reserve University, the University of Missouri–Columbia, and the Midwest Research Institute of Kansas City.

"We see the MRCE as a tremendous opportunity for the region to take the lead in this field and hope it will provide a framework to facilitate collaborative research in biodefense and emerging infectious diseases between academia and industry," says Samuel L. Stanley Jr., MD, the new center's director and professor of medicine at Washington University School of Medicine. "We hope to have a tangible impact on security in this region."

The MRCE's mission is to support basic and translational research in critical areas of biodefense and emerging infectious diseases throughout the Midwest, which includes Missouri, Iowa, Nebraska and Kansas. The center will concentrate on expanding current research efforts in biodefense, identifying new areas of need in the field and expanding facilities to support biodefense research.

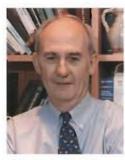
Stahl wins award for research, mentoring

THE FIRST MALE TO WIN THE RECOGNITION, Philip D. Stahl, PhD, the Edward Mallinckrodt Jr. Professor of Cell Biology and Physiology, has been named the 2003 recipient of the Women in Cell Biology Senior Career Recognition Award.

The annual award, initiated by the American Society of Cell Biology in 1986, is given to a woman or man in cell biology who is a full professor or equivalent, does outstanding science and has a long-standing record of support for women in science and of mentoring both men and women.

Stahl studies signal transduction in cells and is a member of the Alvin J. Siteman Cancer Center's cell proliferation program. He was recognized for his efforts to promote the careers of women in science, an interest of his since becoming head of the Department of Cell Biology and Physiology in 1984.

"Phil is well-respected in the field, works hard to help women in science, and has done much to mentor students in his laboratory and faculty in our department," says Helen M. Piwnica-Worms, PhD, professor of cell biology and physiology. "His service to the university has been tremendous."



Philip D. Stahl, PhD

When Stahl arrived at the university in 1971, his department had a lone female faculty member. Today, women represent one-quarter of the faculty.

"I have found women to be wonderful colleagues and mentors," says Stahl, who also chairs the Division of Biology and Biomedical Sciences. "Our experience shows

that they make great scientists as well. When we exclude them from science, we shortchange ourselves."

Stahl's efforts also include spearheading the development of a day care center for the children of School of Medicine faculty and staff and chairing the Gender Pay Equity Committee for the past decade.

In addition, Stahl has pushed for greater minority representation on the faculty and in the student body by chairing minority recruitment and outreach committees. He also played a leading role in developing the university's widely praised Young Scientist Program, which brings disadvantaged students to campus for summer laboratory placements and special science seminars.

Dacey receives prestigious award for outstanding commitment to neurosurgery research

INTERNATIONALLY RECOGNIZED for his contributions to understanding and treating conditions that affect blood vessels in and around the brain, Ralph G. Dacey Jr., MD, the Henry G. and Edith R. Schwartz Professor and chairman of neurological surgery, has been named the 2003 recipient of the Grass Foundation Award from the Society of Neurological Surgeons. The award recognizes individuals for outstanding and continuing commitment to research in neurosurgery.

"This is one of the greatest honors that can be given to a neurosurgeon," says Edward Oldfield, MD, chief of the surgical neurology branch of the National Institute of Neurological Disorders and Stroke and



Ralph G. Dacey Jr., MD

chairman of the Grass Foundation Award Committee. "The award is designed to honor the accomplishments of a neurosurgeon whose research has been productive and who has been a good example to young people of an academic neurosurgery career."

The international award was instituted by Sidney Goldring, MD, who preceded Dacey as chairman

of neurological surgery. Dacey joined the Washington University faculty in 1989.

CANCER PREVENTION AND CONTROL

Nicotine inhalers could reduce rates of smoking-related illnesses

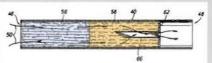
mokers might significantly reduce the adverse health effects of their habit if they could switch from cigarettes to inhalers that deliver doses of "clean" nicotine, predicts a School of Medicine study. Cigarette-sized doses of pure nicotine could be delivered using inhalers modeled after those used by people with asthma, according to the study published in the June issue of the journal Tobacco Control.

Nicotine inhalers, which are not currently available, would deliver doses of nicotine deep into the lungs in a manner similar to smoking cigarettes. Researchers expect the inhalers to have the same drug effect as cigarettes and to be just as addictive. But they also predict that inhalers would be safer than cigarettes because they would lack the chemicals in smoke that are most responsible for smoking-related deaths from cancer, emphysema and heart disease. Inhalers also would eliminate the problem of second-hand smoke.

"There seems to be no effective way to convince many smokers to quit," says principal investigator Walton Sumner II, MD, associate professor of medicine.

Sumner, whose father died of smoking-related lung cancer, began studying the use of nicotine inhalers as a substitute for cigarettes after witnessing the limited success of smoking cessation and prevention programs. In addition, he says, the medical literature and historic accounts of tobacco control efforts demonstrate the difficulty, and perhaps impossibility, of significantly lowering smoking rates.

A model Sumner developed, a computer program called Differences in Expected Mortality Adjusted for Nicotine Delivery Systems (DEMANDS), predicts



"There seems to be no effective way to convince many smokers to quit."

WALTON SUMNER II, MD

Above: "Ory Powder Delivery System," U.S. Patent 5,441,060; Rose, et al., August 15, 1995 years of potential life gained or lost as a consequence of changes in the safety and prevalence of nicotine use.

DEMANDS makes predictions based on four general components of smoking that contribute to tobacco-related disease: nicotine; smoke, which is composed of thousands of gases and particulates; carbon monoxide, a highly toxic gas; and so-called correlates of smoking, which are characteristics of smokers unrelated to cigarettes that increase a person's risk of death, such as poverty, alcoholism or psychiatric illness.

The model showed that as long as nicotine contributes less than one-third of the risk of smoking-related illness, widespread use of nicotine inhalers might significantly reduce premature death.

"This study suggests that the use of nicotine inhalers should be considered," says Sumner, who also is a member of the cancer prevention and control program at the Alvin J. Siteman Cancer Center. "The challenge is to convince the tobacco control community that this is a rational alternative that should be studied."



Global warm feeling T.S. Park, MD, the Shi H. Huang Professor of Neurological Surgery and professor of pediatrics, international case manager James Lee and physical therapist Karen Good celebrate at a party thrown for a group of cerebral palsy patients from around the world who visit the School of Medicine annually for extended treatment and care. At the party, international patients from Portugal, Iran, Switzerland, Holland and the United Kingdom enjoyed cake, ice cream and the chance to get to know one another.

Central Institute for the Deaf, WUSM formalize decades-long affiliation

AN ALLIANCE THAT BEGAN AS A TRUSTED HANDSHAKE IN 1931 has become a formal affiliation. After decades of working together, Central Institute for the Deaf (CID)—one of the leading education and research centers for hearing disorders in the world—has entered into a historic agreement with Washington University, its School of Medicine and Department of Otolaryngology.

Under the terms of the agreement, the School of Medicine has assumed ownership and governance of a portion of CID's programs, including its hearing research, adult clinical care and advanced degree programs, and thereby will continue to advance the institute's mission to help people with hearing loss. The CID School and Outreach Center will continue as independent programs.

"This new level of partnership with CID reaffirms Washington University's commitment to biomedical research in hearing, clinical care for those with hearing impairment, and graduate-level education of future specialists in audiology, deaf education, and speech and hearing sciences," says Mark S. Wrighton, chancellor of Washington University.

The transferred programs have become part of the Department of Otolaryngology, under the direction of Richard A. Chole, MD, PhD, the Lindburg Professor and chair of the department, which currently ranks No. 4 in National Institutes of Health funding to otolaryngology departments nationwide. The addition of eight CID scientists will make it the largest otolaryngology research program in the country.

According to the agreement, the transferred and expanded research, clinical and graduate degree

programs now operated by the university in affiliation with CID will be called "CID at Washington University School of Medicine."

"The affiliation will strengthen both institutions and create an international powerhouse in the field of hearing and deafness," says Larry J. Shapiro, MD, executive vice chancellor for medical affairs and dean of the School of Medicine. "CID's renowned reputation will strengthen the medical school as a whole."



Celebrating five decades of nephrology

Former renal division directors Saulo Klahr, MD (left), the John E. and Adaline Simon Professor of Medicine, and Neal Bricker, MD (center), the first director of the renal division when it was founded in 1956, discuss the remarkable progress made in dialysis services at Washington University with current director Marc R. Hammerman, MD, the Chromalloy Professor of Renal Diseases in Medicine. The physicians were reunited at a celebration honoring 50 years of nephrology at the School of Medicine, held earlier this summer in conjunction with the opening of the newly relocated Chromalloy Kidney Center.

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Holtzman chosen to assume leadership of Department of Neurology

ALZHEIMER'S EXPERT David M. Holtzman, MD, has been named the Andrew B. and Gretchen P. Jones Professor of Neurology and head of the Department of Neurology. Holtzman also will continue as the Charlotte and Paul Hagemann Professor of Neurology and as professor of molecular biology and pharmacology.

Holtzman succeeds David B. Clifford, MD, professor of neurology and the Melba and Forest Seay Professor of Clinical Neuropharmacology in Neurology, who served as head of the department during the search for a permanent replacement for Dennis W. Choi, MD, PhD, now executive vice president of neurosciences at Merck Research Laboratories.

As head of neurology, Holtzman hopes to bolster the department's clinical services and to encourage the faculty's thriving basic and clinical neurology research.



David M. Holtzman, MD

His own research focuses on the underlying mechanisms that lead to Alzheimer's disease, in an effort to improve diagnosis and treatment. In addition to seeing patients at the Alzheimer's Disease Research Center and the Memory Diagnostic Center, he leads a research team that works with animal models of Alzheimer's, studying the protein amyloid-beta.

PSYCHIATRY

Antidepressant drugs may protect brain from damage due to depression

tudying women with histories of clinical depression, investigators at the School of Medicine have found that the use of antidepressant drugs appears to protect a key brain structure often damaged by depression.

Previous research has shown that a region of the brain involved in learning and memory, the hippocampus, is smaller in people who have been clinically depressed than in those who never have suffered a depressive episode. Now, researchers have found that this region is not quite as small in depressed patients who have taken anti-depressant drugs.

The study, led by Yvette I. Sheline, MD, associate professor of psychiatry, radiology and neurology, appeared in the August issue of the *American Journal of Psychiatry*.

The hippocampus is a part of the brain's limbic system, a group of structures important to emotion and motivation. Using high-resolution magnetic resonance imaging (MRI), Sheline's team measured hippocampal volumes in 38 women who had experienced an average of five episodes of major depression in their

lifetimes. Only some of those episodes had been treated with antidepressant drugs.

In addition to the brain scans, each woman was interviewed on two occasions by independent interviewers to determine how long each depressive episode lasted and how much, if any, of that episode was treated with antidepressants.

The team compared hippocampal volumes to the number of days on or off treatment. They found that on average, hippocampal volume was smaller than normal in depressed women, and that the

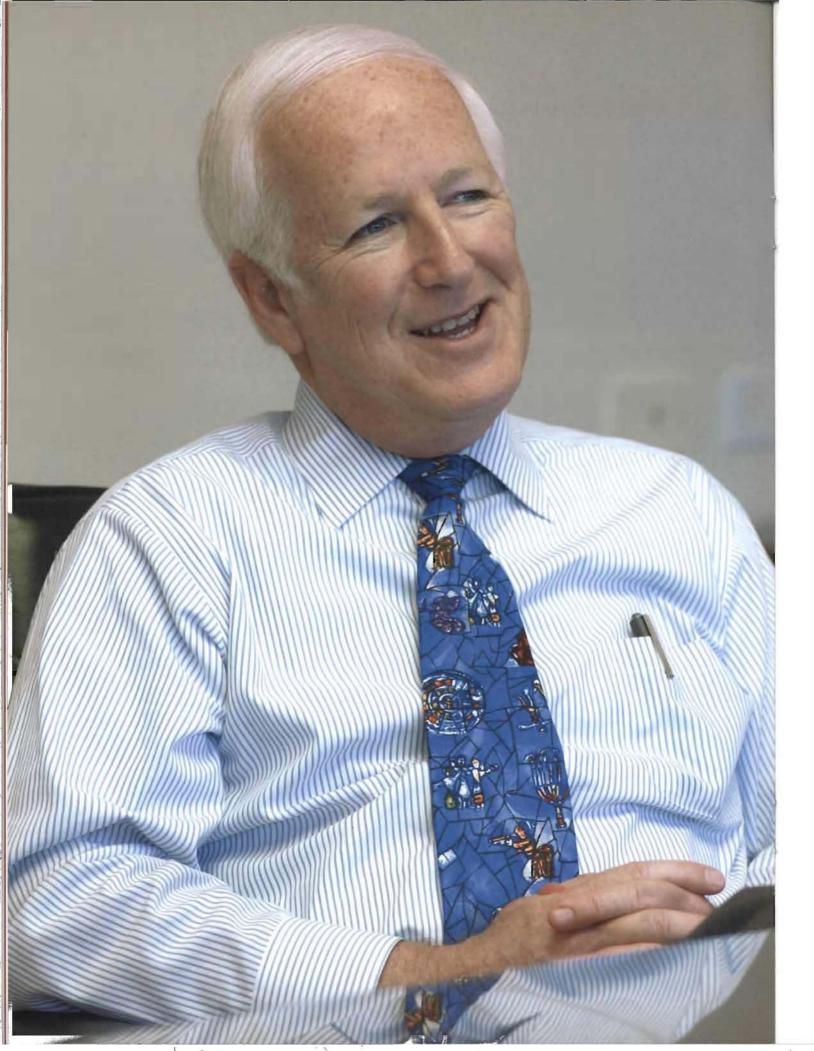
Clinical depression appears to shrink the hippocampus.

less time a woman had spent taking antidepressants, the smaller her hippocampus.

"Our results suggest that if a woman takes antidepressants whenever she is depressed, depression would have less effect on the volume of her hippocampus," Sheline says. "It is the untreated days that seem to affect hippocampal volumes."

Why the hippocampus shrinks is not clear. It may be that brain chemicals released during depression, such as cortisol, damage brain cells. Or it could be that depression damages the connections between nerve cells, resulting in a smaller volume. However it happens, Sheline says it is clear from this study that antidepressant drugs can limit the damage.

"We've shown in other studies that people with hippocampal damage also have problems with certain memory tests," she says. "And large epidemiology studies have shown that major depression is a risk factor for the later development of Alzheimer's. So it seems clear that volume loss in the hippocampus can have very negative effects, not to mention the devastating problems caused by depression itself."



One of the university's "brightest and most enthusiastic" students returns, rededicating WUSM—and himself—to leadership.

BY STEVE KOHLER

Dean Shapiro

N DECEMBER 6, 2002, WHEN LARRY J. SHAPIRO, MD, formally accepted the positions of dean of the School of Medicine and executive vice chancellor for medical affairs, his remarks included a favorite quote from former U.S. President Bill Clinton: "When our memories outweigh our dreams, we become old."

Shapiro, a graduate of baccalaureate and MD programs at Washington University, returns to the campus with a wealth of memories of the institution. But as his citation makes clear, those memories are eclipsed by the vision that he has for the future; they are more fuel for what can be than reminiscence of what has been.

For example, Shapiro first arrived on the medical campus as a student at about the time the revolution in genetics was beginning. Recalling his time as a medical student, he says, "No one could have predicted then most of the things we now do on a daily basis. Completing the sequence of the human genome wasn't imaginable," he says.

After an eminent 30-year career in genetics at UCLA and UCSF (including important contributions to the understanding of X chromosome inactivation and more than 130 journal articles), Shapiro now challenges the School of Medicine to build on its scientific strengths and to lead the way in a second genetic revolution: "At the heart of what we should be doing is the building of translational bridges—taking all of our advances in genetic sequencing, analysis, imaging and other technologies and applying them to human problems." He calls the goals of the medical school's BioMED XXI initiative—designed, among other things, to bring progress in genomic science to the bedside—"ambitious and large, but precisely on the mark."

Larry J. Shapiro, MD, has come full circle since his days as a medical student, assuming the dual positions of vice chancellor for medical affairs and dean of the School of Medicine.

Dean Shapiro

hapiro also plans close work with community leaders and organizations to effectively transfer developing technology to start-ups and bio-tech firms, an area in which he says Washington University "has not been dormant, but one in which we can be more active." He calls on the School of Medicine to become "an engine" to drive the fruits of scientific investigation to the people who ultimately will benefit.

William Sly, MD, arguably one of the fathers of human genetics at Washington University, predicts success for Shapiro's plan. Today chairman of biochemistry and molecular biology at Saint Louis University, Sly remembers Shapiro as "the brightest and most enthusiastic" student among a small group interested in human genetics, then adds, "He's always been the best—at every stage of his training."

Shapiro was first inspired toward medical science in a developmental biology class he took from Viktor Hamburger and Nobelist Rita Levi-Montalcini, an experience he recalls as "spectacular. They infused me with the excitement of scientific discovery." He adds, "In some other places, students may be overwhelmed with rote memorization; at Washington University, people are

provoked to think and are prepared for a career of lifelong learning. To promote curiosity and critical thinking—these should be the hallmarks of our programs.

We must continue to build upon our excellence in education," he says. "We'll soon begin construction of the Farrell Learning and Teaching Center that will be the centerpiece of our efforts. But we have to rededicate ourselves to assuming a leadership role in medical and scientific instruction. We must utilize new information technology as well as simulation modules. We need to continue the evolution to interactive discussions from large lecture formats." His concern is with the complete student experience, he says, and he also hopes to address the issue of student indebtedness and its disproportionate influence on career choice.

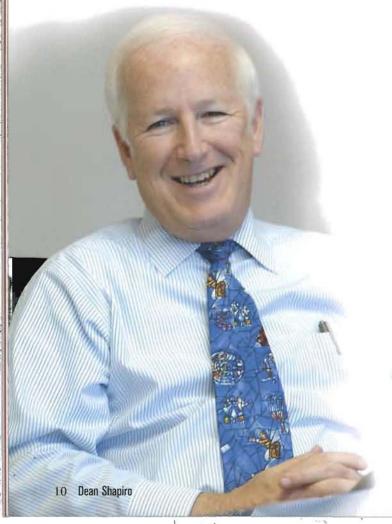
Central to his vision for advancing the teaching portion of the school's mission is his appreciation for graduate education, an area in which Washington University's cross-departmental Division of Biology and Biomedical Sciences established the benchmark. Shapiro says, "Our model has been widely emulated. Now we must take the next step in science education to produce the next generation of leaders."

Apropos of the breadth of his own education here, when Shapiro speaks of his commitment to advancing instruction, he often refers to the university as a whole. And his commitment includes fostering what he calls "community across the park." He foresees new collaborations with endeavors on the Hilltop campus, including biomedical engineering, chemistry, physics, social work, economics and perhaps others.

"UCSF is a health sciences campus only, with no undergraduate students," Shapiro says. "Returning to a full university, I'm reminded of how rich and wonderful the Hilltop is. The university is thriving and is a premiere institution, widely known for its quality." Chancellor Mark Wrighton says of Shapiro: "Being a graduate of the university's undergraduate program and medical school, he is familiar with us and our traditions. I look forward to our work together in the years to come."

"I find it challenging and interesting to put the people and resources together to make good things happen." LARRY J. SHAPIRO, MD

Fall 2003 Outlook



With regard to the broader community, Shapiro appreciates the enhancements to many St. Louis neighborhoods, particularly downtown and the Central West End, since the days when he was a student. "Anyone who thinks St. Louis hasn't made progress, doesn't remember those days," he says. "St. Louis is a vibrant place, with a great quality of life. We have to enhance the reputation of the school and build a sense of pride for the school within the community. That's another way for us to attract and retain the best students, faculty and staff."

On the clinical front, Shapiro is a veteran of building partnerships in the interest of improved care. As UCSF's pediatrician-in-chief, he worked on the attempt to merge the UCSF and Stanford medical centers. "Ultimately, it was an ill-fated marriage that came unraveled," Shapiro says, but the joint children's program was largely successful, and it improved the health of the children of Northern California. So Shapiro's vision calls for the closest possible collaboration with Barnes-Jewish Hospital and St. Louis Children's Hospital.

"It is to our mutual benefit to build on our partnership," he says. "We couldn't be as great as we are without a strong clinical partner. Although it is a complex association in which we may have different emphases, the success of our partnership with our teaching hospitals is critical to our future. Every top ranked medical school is associated with a great hospital."

He aims to establish Washington University Physicians as the "very best provider of care in the region. We compete nationally in medical science; we compete nationally for the best students. We have to compete in the delivery of highly specialized, highly competent and compassionate care."

As for "managing" the School of Medicine,

Shapiro will follow the lead of former dean William A. Peck, MD, whom he succeeds, and says simply that he won't. "It's a misconception that the dean is in charge. I'll have 1,400 faculty suggesting the best course of action."

More seriously, he points out that top-down management may succeed in a corporate or government setting, but that his job is more to "help plan, execute and secure the necessary resources to allow good people to fulfill their dreams. A place so complex requires an extraordinary diversity of skills and talents. One of my key tasks is to foster excellence in all areas, to make

sure everyone, not just the obvious stars, feels valued for their contributions."

The time demands of his new job are likely to make research or clinical endeavors difficult. Although Shapiro says that he will miss his personal involvement in research and patient care, he is looking forward to the challenges of leadership. He says, "As my career has evolved and moved more toward administration, I've discovered a new kind of creativity. One way to be creative is to see the connections and to build the cooperation that make quantum advances possible. I find it challenging and interesting to put the people and resources together to make good things happen."

Of Shapiro's administrative skills overseeing the 120-member Department of Pediatrics at one of the nation's top 10 medical schools, UCSF dean of medicine Haile T. Debas, MD, says, "His uncompromising standards and advocacy for academic excellence, his national standing as a leader . . . brought recognition to UCSF. He was not just a department chairman, he was also one of the most committed and valued campus leaders."

Shapiro foresees a few hurdles to fulfilling his vision. "Ours is a strongly departmental system," he says, "with financial responsibility and authority residing in the departments. It's a good system for many reasons, but it requires activation energy to achieve interaction between departments. To create interdisciplinary programs of the size and complexity of the Siteman Cancer Center will take commitment on the part of the school's leadership."

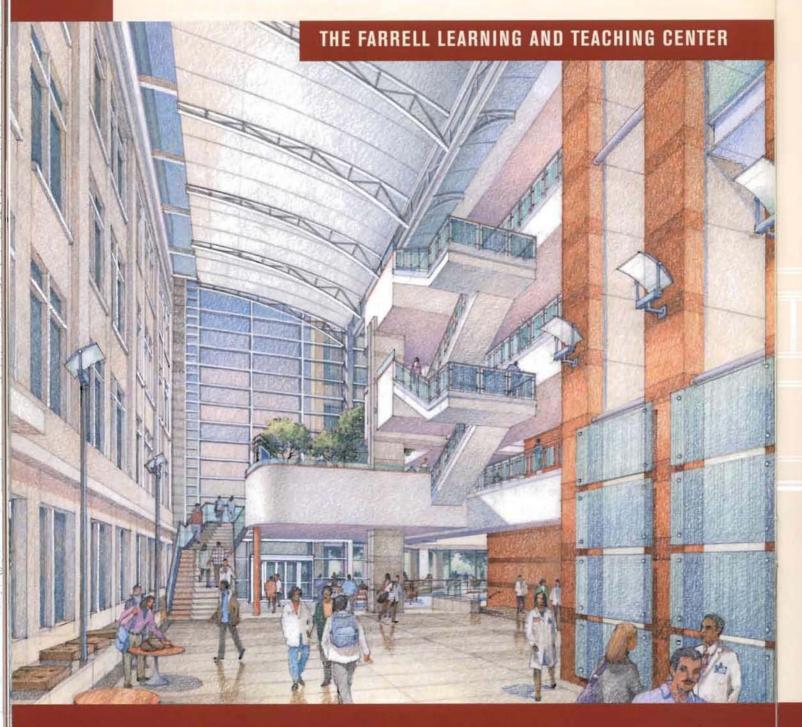
A second challenge will be to continue to secure the resources required as expectations inexorably rise. "We simply have to be successful at continuing to obtain support from both granting agencies and our many friends in the community," he says.

But overall, Shapiro concentrates on the positive over the negative, the dreams over the memories. He possesses confidence in the people of the School of Medicine.

"What makes this institution superb is the quality of the people. They are stunning. Because of them, no other place has the same ability to bridge medicine and science. Both disciplines have become more challenging. Science is much harder and more complex. Delivering care is also more difficult. But here we are ideally positioned to translate scientific advances into clinical reality, to deliver care with scientific rigor while continuing to make groundbreaking discoveries. For me, it's the opportunity of a lifetime."

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Learning at the CROSSROADS





In years to come,
the school's academic
"home" will be where
the "hearth" is.

BY JULI LEISTNER

ASHINGTON UNIVERSITY SCHOOL OF MEDICINE is known for providing a collaborative, collegial atmosphere for learning. Beginning this summer, the school will further enhance this atmosphere with the addition of a new centralized, dedicated teaching facility. Called the Farrell Learning and Teaching Center, the building will, for the first time, create a "hearth" for learning that both students and teachers can call home.

Located at the heart of the medical center, the striking six-story structure will serve as the main venue for teaching and events at the school. Official ground-breaking is slated for fall 2003, with completion by the end of summer 2005.

"The medical school must continue to provide a rich learning environment that reflects the continual evolution of the biomedical field. When this project is completed, our students will have a truly exceptional environment in which to prepare for new challenges in science and medicine," says Larry J. Shapiro, executive vice chancellor for medical affairs and dean of the School of Medicine.

The facility, which will serve medical and graduate students, will be built at the corner of Scott and Euclid avenues, abutting the North Building. Nearly every level will house teaching spaces, as well as hearth areas for social gathering. For after-hours learning, the building also will include computer rooms and study carrels. Level six initially will be shell space; adding a seventh floor will be possible in the future.

A four-story atrium will sit on top of Scott Avenue, allowing pedestrian traffic between Euclid and Scott. The exterior of the North Building serves as one wall.



David C. and Betty Farrell

Academic center made possible through Farrell leadership gift

The Farrell Learning and Teaching Center is named for donors David C. and Betty Farrell, whose leadership gift was announced in July 2003. "We are extremely grateful to the Farrells for their generosity. It is gifts like theirs that help the medical school continue to enhance its role as a world leader in medical education," says Larry J. Shapiro, MD, executive vice chancellor for medical affairs and dean of the School of Medicine.

One of the nation's most successful retail executives, David Farrell retired as chairman and chief executive officer of The May Department Stores Company in 1998 after almost 20 years at its helm. Under his leadership, May grew to become one of the largest and most profitable department store companies in the country.

CONTINUED ON PAGE 16

he need for such a facility is widely recognized, says Philip Stahl, PhD, professor and head of the Department of Cell Biology and Physiology. Current teaching spaces are inconveniently scattered throughout several buildings; many are sized inappropriately and have inconvenient or limited access to audiovisual and computer technology, he says.

There have been sporadic efforts in the past to create a teaching facility, but the idea truly took flight in January 1998 when former executive vice chancellor for medical affairs and dean William A. Peck, MD, requested the formation of a steering committee to spearhead the project, says Stahl, who chairs that committee. Other lead steering committee members include Alison Whelan, MD, associate dean for medical student



Teaching labs are customized for efficient hands-on learning.

education; John Russell, PhD, associate dean of graduate education and professor of molecular biology and pharmacology; and from the Office of Design and Construction, director Rick Schaefer and project manager Roy Van Hee.

Stahl and others credit Peck's commitment as being key to the project's fruition. The executive faculty endorsed the building's preliminary design in 1999. St. Louis architectural firm Hellmuth, Obata and Kassabaum (HOK) Inc. was hired in 2001.

Design of the building was driven by extensive input from faculty, students and administrators. The result is a building designed to accommodate a wide array of teaching methods and tools.

Level one houses two lecture halls. The larger of the two accommodates more than 140 students. The smaller lecture hall, designated primarily for the Division of Biology and Biomedical Sciences (DBBS), is built for 80 students. Level two includes 16 small-group discussion rooms, six designated for the DBBS. These spaces are

"Every detail was thought out, right down to where the laboratory sinks are, where the microscopes plug in and where you store them."

ALISON WHELAN, MD

critical for supporting the lasting trend toward more small-group interaction in medical education, says Whelan. Levels three and four feature a total of eight teaching laboratories. Level five simulates a realistic outpatient clinic for honing physical examination skills.

Several features were built in to meet two key requirements: flexibility and convenience. All furniture and audiovisuals in the teaching labs and small group rooms are mobile to easily meet the needs of any given class. Motorized partitions are included to adjust classroom size. As computer and audiovisual needs change, wiring can easily be replaced. "The flexible design of the building reflects the fact that we expect to have a dynamic, evolving curriculum. I think that is an important statement about our approach to medical education," says Whelan, associate professor of medicine and pediatrics.

Electronic technology also was identified as key.

"More and more, the critical information we need to communicate to students is available electronically. So one of our main goals was to make access to these types of tools as contemporary, effective and universal as possible," says steering committee member Erika Crouch, MD, PhD, professor of pathology and immunology and coursemaster of the second-year pathology course.

Every workstation in every teaching space will have data connections. Teaching labs will feature electronic marker boards that allow electronic downloading of information written on the display. Students will be able to access computer-based course materials from their





study carrels, plug into the instructor's electronic materials during lectures, and check e-mail in the hearth areas.

To support after-hours learn-

ing, levels three and four of the Farrell Learning and Teaching Center will house study carrels for each firstand second-year student, equipped with network access, marker boards and personal desk space. For group study, students will gather in the empty teaching rooms nearby. "It's important for students to have a place to study and a space they can call their own. The carrels will provide that," says Jason Stephenson, fourth-year class president and steering committee member.

Hearth space on nearly every level will offer a "living room" atmosphere for students and faculty to meet and relax. Hearth space on level one will include a cafeteria. Level two's hearth will be the building's largest, anchored by a comfortable, quiet seating area and fireplace.

"These spaces will give us a place to have the kind of interactions that really do build a sense of community,"

> says Whelan. For example, students will have an easier time maintaining relationships with classmates as the later years of training take them in different directions, says Stephenson.

Lecture halls provide a comfortable atmosphere for learning that includes not only ample work space and moveable chairs, but full electronic connectivity that allows every student to plug into multimedia teaching tools—a model of flexibility and convenience.

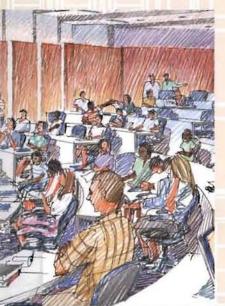
Level two's hearth area will support "the informal curriculum" -learning that takes place during informal discussions among students and faculty. Pedestrian walkways feed into this hearth space, providing seamless indoor foot and wheelchair traffic from one end of campus to the other.

The facility is intended to draw faculty and students together from all corners of campus, says Stahl. For that reason, planners chose a site squarely at the crossroads of the medical center's clinical and basic science domains an easy walk for either a faculty member coming from the hospital or a graduate student coming from a basic science laboratory. The location also offers close proximity to the administration and to the Bernard Becker Medical Library, and its technological resources that are key to supporting the medical curriculum.

In the same vein, the facility includes teaching space for DBBS students, with the goal of co-mingling the MD and PhD training programs under one roof, says Russell. "This will provide an important bridge between basic and clinical research that will foster communication and speed the translation of research breakthroughs to the diagnosis and treatment of human disease."

The Farrell Learning and Teaching Center will serve several intangible purposes as well, planners say. For one, it will define the school's entrance and provide a "front door." As the school's main teaching venue, it also will embody the school's educational mission in a meaningful way, and play an important role in recruiting the best students and faculty, Crouch says.

"I think this project is exciting because it sends the message to both students and faculty that teaching matters here—that we care about them being in a comfortable, beautiful, highly effective learning environment," says Whelan. "That's an incredibly important message."



CONTINUED FROM PAGE 13

Learning and Teaching Center: A Critical Enhancement

Farrell gift makes possible "the right facilities and the right environment"

"The Farrells' generous pledge will greatly benefit not only the School of Medicine but also the entire community by allowing the university to remain at the forefront of medical education," says University Chancellor Mark S. Wrighton. "We extend our heartfelt gratitude to the Farrells for their continuous support of Washington University."

The Farrells are long-time supporters of Washington University. The couple, together with the May Company, also established the David C. and Betty Farrell Professorship of Medicine in the John Milliken Department of Medicine in 2000. The professorship is held by Stuart A. Kornfeld, MD, co-director of the division of hematology and professor of medicine and of biochemistry and molecular biology. Last year, the Farrells enhanced the professorship to the distinguished level. They are Life Patrons of the William Greenleaf Eliot Society, and the conference room in the Center for Advanced Medicine is named in their honor.

"We are very pleased to support
Washington University School of Medicine.
It is one of the premier medical schools in
the country and the most important academic, social and economic institution in
our community," David Farrell says.

He adds that the School of Medicine attracts the best medical and scientific minds in the world and the most promising medical and science students. "The new Learning and Teaching Center is another critical step in providing the right facilities and the right environment for developing the physicians and scientists necessary to provide a better life for people around the globe," he continues. "We applaud Washington University and the School of Medicine on this initiative and are honored to have this teaching and learning center named after our family."

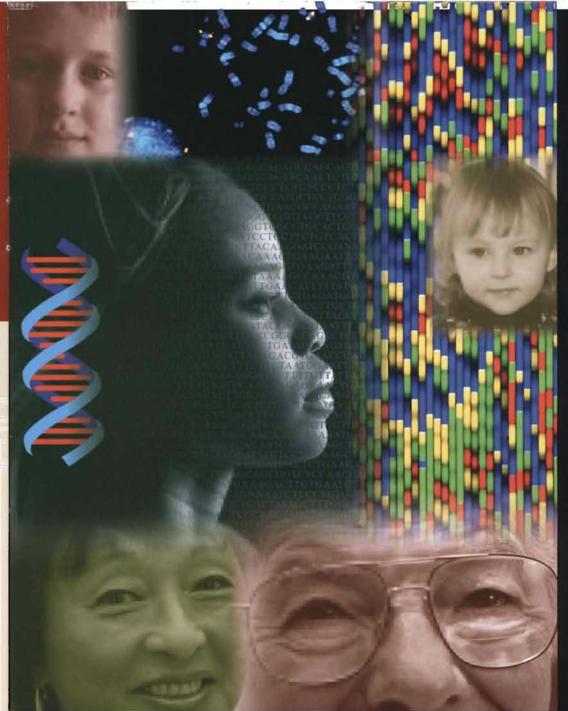
As the groundbreaking nears, Larry J. Shapiro, MD, left, executive vice chancellor for medical affairs and dean of the School of Medicine, reviews plans for the new academic center with Betty and David C. Farrell.

David Farrell has served as a member of Washington University's Board of Trustees for 22 years and is a member of the Community Advisory Board for the Alvin J. Siteman Cancer Center at the School of Medicine and Barnes-Jewish Hospital. He also was an ex-officio member of the search committee to identify candidates for the executive vice chancellor for medical affairs and dean of the School of Medicine.

Outside of the university, David Farrell has served on the boards of the Boy Scouts of America, the Saint Louis Symphony Orchestra, Saint Louis Community Foundation, the Saint Louis Art Museum and other organizations. He also has chaired efforts for the United Way, the Salvation Army and the Arts & Education Council of St. Louis. In 1997, he received the Right Arm Award from the Regional Chamber and Growth Association and in 1988, the St. Louis Award, an honor given to area leaders who have brought distinction to St. Louis.

Like her husband, Betty Farrell is a dedicated community volunteer, notably through her work on behalf of the Saint Louis Art Museum and the Missouri Botanical Garden; she has served on the Botanical Garden's Board of Commissioners, She served on the University Libraries National Council from 1987 to 1990 and led a fundraising effort for an archaeology project at the university. In addition, the Farrells also have long supported the St. Louis community by providing a scholarship fund that sends local inner-city children to private schools. The couple has three children: Lisa; Mark, a 1986 alumnus of Washington University School of Law; and David, a 1990 alumnus of Washington University School of Law.





Plans for the Genome

Sequencing Center extend

far beyond the famous

mapping project—

laying the foundation of

21st century medicine.

BY DARRELL WARD AND HOLLY EDMISTON

A NEW ERA OF MEDICINE IS UNDER WAY.

"With the completion of the Human Genome Project," says Richard K.
Wilson, PhD, professor of genetics and director of the Genome
Sequencing Center (GSC) at Washington University in St. Louis,
"medical scientists have begun applying genomics on a wide scale
to help understand disease and improve people's lives."

The Human Genome Project, completed 50 years after the discovery of DNA, is arguably one of mankind's greatest achievements, and scientists at the School of Medicine were at the project's forefront. Today, those researchers, in conjunction with physician-scientists from many departments across the university, are leading the way toward reaping the potential of this powerful genetic database.



Already, the genome sequencing effort has helped to spur discoveries about breast, colon and prostate cancers, cystic fibrosis, Huntington's disease and Parkinson's disease. And while mapping the complete genomes of organisms remains the focus of the Genome Sequencing Center, it is the next



step—the application of the genetic code—that holds the potential to change medicine. Using the map of the human genome, physician-scientists can "finger" the genes that cause disease. Now, the detective work that may someday change, and even save, lives begins.

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The Genome Sequencing Center

(GSC) at Washington University in St. Louis, one of the three largest such centers in the world, remains a gene-sequencing powerhouse. It specializes in large-scale, highthroughput genome sequencing, with 155 state-of-the-art sequencing machines churning out up to 1.2 billion bases, the building blocks of DNA, each month.

Current GSC projects include sequencing the genomes of the chimpanzee, the chicken and the mouse. Data from these projects like that from the Human Genome Project—are added to public databases; information gathered is made immediately and freely available to the international scientific community via the Internet to facilitate developments in genetic research.

The challenge that remains in de novo sequencing lies mainly in improving the process, says Wilson, who works routinely with GSC colleagues to improve processing technology and software and to better manage data. Today, it is the application of the information gleaned from sequencing that holds exciting future promise. This new field of study—called applied or functional genomics—has given the Genome Sequencing Center's leadership an opportunity to redefine its mission and its goals.



Genome Sequencing Center director Richard K. Wilson, PhD, and co-director Elaine Mardis, PhD, are leading the center into a new era of genomic medicine.

Working with colleagues across the university, investigators at the GSC are applying genomics to better understand illnesses ranging from neonatal lung disease to cancer. The genome encyclopedia that sequencing the human genome provides allows researchers to "look up" genes of interest and study them in detail. "The human genome sequence provides a place for researchers to begin if they are interested in correlating specific genes to specific disease," says Wilson.

The infrastructure—the machines and people of the GSC that can manage the volume of data applied genomics will require—is in place and, according to Wilson, will

grow even better and faster in the future. How much or how fast the new field of applied genomics will expand is less easy to predict.

"One thing we have to do is prove to the scientific community and to funding agencies that studying disease on a gene-by-gene basis is good activity—that if you have some gene candidates for particular diseases it makes sense to get patient samples together, to start resquencing and look for mutations," says Wilson.

The GSC already is working with a handful of investigators Wilson labels as "visionary" in their attempts to incorporate genomics into their research. His goal for the GSC is to connect with as many like-minded School of Medicine

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NEXT IN THE SEQUENCE

One such researcher is Timothy J. Ley, MD, the Alan A. and Edith L. Wolff Professor in Medicine and professor of genetics, who is leading a study designed to identify genetic changes associated with adult acute myeloid leukemia (AML). Ley began assembling a team more than two years ago to study specific genes found in patients with AML, with the ultimate goal of looking at every gene in the map to find all those involved in causing leukemia.

Ley, who also is associate director of basic research at the Alvin J. Siteman Cancer Center, along with colleagues Wilson and GSC codirector Elaine Mardis, PhD, from the Genome Sequencing Center, and John F. DiPersio, MD, PhD, Daniel C. Link, MD, Michael Tomasson, MD, Timothy A. Graubert, MD, Howard L. McLeod, PharmD, Hanna J. Khoury, MD, Kathryn M. Trinkaus, PhD, Mark A. Watson, MD, PhD, William D. Shannon, PhD, and Jeffrey D. Milbrandt, MD, PhD, all from the Siteman Cancer Center, designed an initial study that examined a dozen genes in 47 AMI. patients. Data generated in that pilot study showed interesting sequence changes - possible mutations-that warranted further research. On the basis of that work, Ley, Wilson and colleagues recently received a four-year, \$11 million program project grant from the National Cancer Institute that will

allow the research team to scale up, eventually looking at thousands of genes from 140 AML patients.

According to Ley, functional genomics research is not so much a collaboration between researchers as it is a joint agreement among many people who share the same powerful vision. "It doesn't just take a sequencing center to do this research, it takes a group of people who understand the disease they are studying and the nuances of treatment," Ley says. "We have the critical mass at Washington University to launch these projects."

That "mass" includes the expertise of the GSC, physician-scientists, human and experimental geneticists, computational biologists, pathologists, cell biologists, mouse modelers, clinical data managers and statisticians. "It takes a mix of people to do a project correctly—it can't be done in one lab," says Ley. "We all pull together to solve problems."

The potential benefits of such collaboration are enormous. "Getting to the genetic roots of

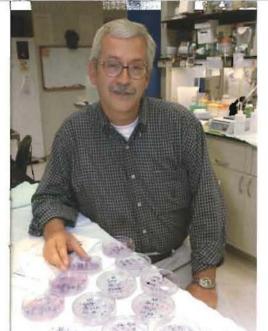
disease one patient at a time will rewrite how we deal with disease," says Ley. "Even thinking about getting at the molecular roots of disease will change our understanding and approach to individual therapy and give us new drug targets. It's revolutionary and will affect how we ultimately treat patients."

Ley is not alone in his enthusiasm. Several other scientists at the university also approached the GSC early on to propose projects using sequencing information.

Jeffrey D. Milbrandt, MD, PhD, professor of pathology and immunology and of medicine, and a multi-disciplinary team of researchers have received funding from the CapCURE Foundation to survey all of the kinase genes for mutations in prostate tumors from nearly 100 patients.

The first study of its kind, Milbrandt believes it will identify new drug targets in prostate cancer cells and thereby speed development of innovative treatments for the disease. The work also may identify patterns of mutations that could





The health care potential of genomic science is being applied by a handful of visionary researchers such as Timothy J. Ley, MD.

improve diagnosis and help doctors predict the course of the disease and the best therapy for individual patients. "The Human Genome Project has made studies like this possible; having the Genome Sequencing Center on campus enables us to do our work here and now," says Milbrandt, who also directs the Bioinformatics Core at the Siteman Cancer Center.

Jeffrey I. Gordon, MD, the Dr. Robert J. Glaser Distinguished University Professor and head of molecular biology and pharmacology, agrees. His study underway with the GSC examines the stem cells that fuel the renewal of the stomach and intestinal lining throughout life. The study will provide a molecular description of these gastrointestinal stem cells and determine how they compare with other stem cells in GAATTCAAGGTTCAGTA

the body. That information, Gordon says, should provide new insights that will help doctors diagnose and treat many gastrointestinal diseases.

Other investigators utilizing the GSC's capabilities include F. Sessions Cole, MD, who is studying a gene for a lung protein that is essential for breathing at birth, and Scott J. Hultgren, PhD, who has a five-year Specialized Centers of Research (SCOR) grant to detail bacterial-host interactions during urinary tract infections.

Looking to the future, two key initiatives will alter the way the GSC does business, by bringing physician-scientists together and by securing funding earmarked for applied genomics research.

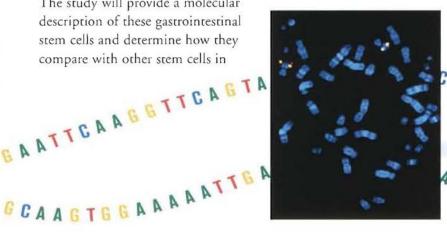
Selected investigators will relocate to renovated space in the 4444 Forest Park Avenue building where the GSC is located. "We have always thought it important to be surrounded by more people who are actually doing genomics and who are using the information and technology in an applied way," says Wilson. "By having these researchers in close proximity to the technology, the data and the people generating it will create a real synergy."

And, because preliminary research results are critical in the competition for federal research dollars, Wilson and his GSC colleagues hope to secure funding for that purpose, as well as to put in place a review group for preliminary research applications.

"The School of Medicine is uniquely positioned to participate in the transformation of medicine that is occurring with the application of genomic sciences to the solution of clinical problems," says Larry I. Shapiro, MD, dean and executive vice chancellor for medical affairs. "The Genome Sequencing Center is an exceptional resource; in addition, the focus on collaborative efforts between basic scientists and clinicians insures that we will be leaders in this exciting new area."

How will the new field of applied genomics affect the health and life of the average person? Most likely, genetic data will lead to a precise personalization of individual health care. Today's scientists are just beginning to explore where such knowledge may lead.

While beneficial, some people may find the prospect of such detailed genetic analysis unsettling. "Any technology that we humans inflict on ourselves carries its risks along with its benefits," says Wilson. "This is one technology where, applied the right way, the benefits far outweigh the risks."



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N AN AGE OF SENSATIONAL NEWS AND "REALITY TV," the true story of a pioneering surgery has risen above the fray, making St. Louisan Amy Hancock an "overnight" media celebrity. A complex procedure restored her ability to speak—the first of its kind performed in the U.S.—and its successful outcome has grabbed local headlines and spurred national television coverage. "This can't last, but for now I am having the time of my life," says Amy happily, in her raspy but confident new voice.

It was not a transplant, not an artificial device, but a reconstruction of Amy's voicebox performed on May 23 at Barnes-Jewish Hospital by head and neck surgeon Randal C. Paniello, MD, that revived Amy's ability to speak. No more robotic-style speech from holding an electrolarynx device to her throat—as she had done for five years since losing her own larynx to cancer.

Best of all, Amy says, her experience and the accompanying publicity may help others achieve the same satisfying result. While her operation was still in progress, an e-mail reached Paniello's office from a man who had heard the news and hoped that voicebox reconstruction might also benefit him. "That's the kind of thing that really makes this all worthwhile," she says.



A pioneering surgery makes the news— and changes a life.

BY CANDACE O'CONNOR

FROM CANCER TO A CURE

Hancock's long struggle began in May 1997 when she developed hoarseness that would not go away. She was 21, a University of Missouri-St. Louis junior hoping for a career in radio broadcasting, and serious illness was the farthest thing from her mind. Incredibly, cancer was the diagnosis, though she had no family history of the disease and was only a very occasional smoker.

But laryngeal cancer, uncommon in one so young, is not actually rare: Some 13,000 Americans are diagnosed with the disease each year. While smoking is a major risk factor, 5 to 10 percent of patients have never smoked. Why they develop the disease is not yet fully understood, but may have to do with a failure of the immune system to perform routine surveillance and clean-up of stray cancer cells.

In Amy's case, radiation treatments did not eradicate the cancer, so that December Washington University otolaryngologist Donald G. Sessions, MD, performed surgery to remove her voicebox. He created two separate tracks within her throat: one for eating and another

Above: Less than one month after laryngeal reconstruction, Amy Hancock utters her first words: "Oh, my God, thank you."

Below: Surgeon Randal C. Paniello, MD, outlines Amy's surgery and recovery at a press conference on June 16, 2003.



for breathing, the latter connected to a breathing hole or "stoma" in her neck. This laryngectomy was successful — for five and a half years now Amy has been cancer-free but it also left her without a voice.

"People think of the voicebox as being the voice, but that is only partly true," says Paniello, associate professor of otolaryngology, who took over Amy's case after Sessions retired in 2001. "If you put a microphone above your vocal cords, you would just hear the 'BZZZZZ' of vibrating tissues. How does that become words? You move your tongue, soft palate, cheeks, lips, even teeth. So if we could reintroduce vibrating tissue, Amy had those other parts intact to convert that vibration into sound."

Through the years, she tried various ways to reintroduce that needed movement. Following a



laryngectomy, some patients learn "esophageal speech": swallowing a gulp of air and belching it back to create the necessary vibrations.

Others use a tiny, implanted device called a tracheo-esophageal puncture (TEP), which diverts air from the windpipe into the throat, again producing the vibrations needed for speech. Neither method worked for Amy, who underwent repeated surgical procedures and Botox injections in an effort to free up tight throat muscles that doctors thought might be hampering the TEP's effectiveness.

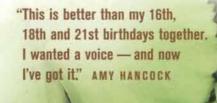
As her five-year anniversary approached in December 2002—the date on which she was considered cured of her disease—Paniello began pondering new ways to help Amy regain more normal-sounding speech. His preferred solution was a larynx transplant, a procedure used successfully in 1998 at the Cleveland Clinic, but Amy's insurance company rejected the proposal as too experimental.

A PIONEERING PROCEDURE

In spring 2003, Paniello was giving a lecture to otolaryngology residents on ways to rehabilitate laryngectomy patients, when he mentioned a 1990 journal article by a German author on his success with laryngeal reconstruction. Altogether, the surgeon had used it to help 10 patients, mostly at the time of their initial voicebox removal. "As I was speaking," Paniello says, "I began thinking, 'Hey this could work for Amy!"

She was ready as soon as he mentioned it. While her previous surgery had brought some good things into her life—a chance to be keynote speaker at a "Relay for Life" event of the American Cancer Society; the decision to acquire a toy poodle, her darling Macie, as companion and watchdog—it had also led to social constraints.

"I refused to believe that I had to spend my life like that," Amy says of being speechless.



A production crew for the Discovery Health Channel interviews Amy Hancock at the Missouri Botanical Garden, where she is employed in the membership office.

This time, her insurance company said "yes." So at 5 a.m. on May 23, Paniello and his surgical team began the complex reconstruction procedure. Its goal was simple: Just as the TEP does, it would recreate a connection from the airway to the swallowing passage. But instead of using a manufactured device, Paniello would construct the connection, creating a tube of skin that he would implant in her throat.

To find the tissue he needed for it, he would go to her forearm, trimming away a two-inch by two-inch flap of skin, with its blood supply two veins and one artery - still intact. A graft from her leg would replace the missing arm skin. The prospect of all this did not phase Amy, a veteran of surgical procedures. "I was not at all nervous," she said afterwards, "I never worried at all."

Neither did Paniello, who routinely works on the neck and is a specialist in microvascular surgery. After opening Amy's neck and evaluating her vessels to make sure they would attach well to the skin flap, he and his team moved quickly: shaping, stitching and inserting the tube of skin. A tricky part was creating a trash-can-style "lid" on the tube that would flip up when air needed to pass through, then close so that she could swallow safely, without leaking food into her airway. To achieve the necessary stiffness, he borrowed cartilage from her nose.

There were no unforeseen complications during the surgery, which took less time than the 12 hours that Paniello had predicted: only

eight and one-half hours. "Everything fit perfectly," he says. "It was not a routine procedure exactly, but it went very smoothly - as well as I could possibly have hoped."

Amy was in the hospital just six days, then at home for a month-long recuperation that was overseen in part by her mother, who is a nurse. Amy's family and many friends gathered at her hospital bedside to cheer her on during her stay. One wrote to the Cardinals to request a special treat: a visit from Amy's favorite baseball player, second baseman Fernando Viña, who did drop by to see her. "If there was a moment when I thought I might die, it was then," says Amy, who was thrilled.

The real moment of truth was still coming, though. On Monday, June 16—three weeks and three days after her surgery - she was

allowed to test her new voice for the first time, before an audience of medical personnel and reporters. First, Paniello removed a plastic tube that he had inserted in her stoma to prevent scar tissue from forming. To talk, she now has to close off the stoma to force air through the new skin tube into her throat. On this morning, he used a catheter to force in the air she needed to speak.

"Oh, my God," she said tentatively, "thank you." Soon, amid tears, she was hugging Paniello and speaking in full sentences. The following week she would be fitted with a Provox FreeHands valve that will regulate air flow through the stoma, so that she no longer has to use her thumb to close it off.

"I don't know if there are words to describe how I feel," says Amy, whose speech will always sound gravelly, though it is much improved over her old mechanical voice, "This is better than my 16th, 18th and 21st birthdays together. I wanted a voice—and now I've got it." □



Randal C. Paniello, MD (sitting, right), associate professor of otolaryngology, performs a laryngeal reconstruction on patient Amy Hancock earlier this year. The surgery, the first of its kind done in the United States, gave Amy back the voice she had lost more than five years ago to laryngeal cancer.

The Honorable Continuum

BY RUTH BEBERMEYER

Highlighting the accomplishments of students, medical graduates, current and former house staff, and faculty who embody the School of Medicine's unbroken tradition of excellence.

"El Medico de las Corbatas"

When Colin T. McDonald, MD 93, works at the makeshift clinic in the Dominican Republic where he volunteers, he always wears a tie—decidedly unusual in that climate. The natives dubbed him "El Medico de las Corbatas" or "Doctor of the Ties." At the end of his week's mission work, he gives his ties to the interpreters who have assisted as he treated the indigent Haitian immigrants who work in the sugar cane fields. The "tieing ceremony" is richly symbolic—a validation of people in desperate circumstances.

McDonald learned through his church about the dire need for medical care there; on a typical day they see 125 patients and provide needed supplies of medicine.

Colin T. McDonald, MD 93

An American nurse, supported by the American Baptist Association, serves as liaison between American mission doctors and the staff of the charity hospital, Good Samaritan, that has been built there by volunteers. McDonald says, "It has been vety rewarding to see this hospital grow out of the ashes of a former city dump."

Back home, McDonald is an instructor at Harvard Medical School where, in 2002, he was voted

Teacher of the Year by medical students and residents. His teaching skill emerged earlier: During graduate study in neurobiology at Caltech, he was named Outstanding Teaching Assistant. In 2000, he received the Partners in Excellence Award from Massachusetts General Hospital for his devoted care of brain-injured patients. A specialist in neuro critical care, McDonald now directs the stroke program at South Shore Hospital in South Weymouth. He is a director of the Brain Aneurysm Foundation and a member of the executive council of the medical alumni association at Washington University.

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He is married to Katie Hunt McDonald, a physical therapist and also a 1993 Washington University alumna (Master of Health Sciences). Katie also has participated on several mission trips to the Dominican Republic. They have two sons, Lincoln and Timothy, ages 10 and 8, who look forward to joining their parents on future missions when they too can help those in need. Dad speaks the Spanish in the family, and he thanks Washington University undergrad for helping him "become passably proficient."

Good sport's been good for sports

Warren B. Howe, MD 65, is the holder of what would seem to be an unlikely honor for a Washington University School of Medicine graduate: He is a member of the National Wrestling Hall of Fame, inducted May 24, 2003, in recognition of "lifetime service to wrestling."

Howe has been medical director for "Mat Classic," the Washington State all-classification high school wrestling championship tournament, since its inception in 1989, and before that was attending physician for

the Class AAA state rournament for 10 years. "Mat Classic" consists of four simultaneous six-mat tournaments, with a medical staff of more than 60 physicians and athletic trainers.

Now full-time Student Health Center and University team physician in the athletics department at Western Washington University in Bellingham, Howe covers all intercollegiate sports, including a "very impressive women's varsity sports program."



Warren B. Howe, MD 65

He previously spent 21 years practicing family medicine in Oak Harbor WA. His interest in sports medicine started during his United States Navy stint after internship, when his responsibility included caring for several softball reams. That "got me studying the literature

(which at that time was pretty much limited to one text...) and I got 'hooked.'" Howe has since expanded that literature with numerous articles and book chapters of his own. He notes that the sports medicine specialty "has entirely evolved since I've been in practice and has required me to self-educate in it. WUSM does a great job of producing physicians who are enthusiastic lifelong students, and that has been very valuable."

In Oak Harbor, Howe volunteered as team physician for the high school "Wildcats." When a school levy failed and the school board voted to eliminate the athletic program, he ran for the school board in the next election and served for 12 years. "Sports were reinstituted pretty quickly!"

He is a Fellow of both the American Academy of Family Physicians and the American College of Sports Medicine. In 2002, he received the American Medical Society for Sports Medicine Humanitarian Award "in recognition of outstanding humanitarian service." Some of that service occurs as part of his involvement in the Presbyterian Church, where both he and his wife, Hedy, are elders.

Howe enjoys reading history, especially military and Civil War history. He and Hedy have fun training their golden retriever, MacKenzie, although it may be more accurate to say that "Kenzie" trains them — he "insists on regular long walks" that help keep his owners fit.

Superwoman? Well, at least Top 10

Laura David, MD 78, recalls that she and her husband (Tom Murphy, MD 78) were known for doing hospital rounds with toddlers in strollers when emergency babysitting plans fell through. "I could not do what I do without the support (both physical and emotional) of a really great husband, whom I met when we were cadaver-dissecting partners our very first semester of medical school," she says.

What she does is carry on a busy practice that is half obstetrics and half gynecology, getting up "every fifth night or so" to deliver babies. She is assistant clinical professor at Case Western Reserve University (CWRU), advisor for the Ohio Section of District V of the American College of Obstetrics and Gynecology (she is a Fellow of the College), and an active participant in an effort to obtain legislative and judicial support for tort reform in Ohio. In 2002, she was chosen one of the



Laura David, MD 78, and Tom Murphy, MD 78, with daughters Megan and Erin.

"Top 10 Doctors" in Northeast Ohio by *Northern Ohio Live* magazine's professional survey; she has repeatedly been listed in *Best Doctors*.

David was inspired by her family physician, Washington University alumnus Guy Magness, MD 28, who "did everything"—delivered her, stitched her cuts from tomboy escapades, pierced her ears, and "did it all with joy and energy." He urged her to choose Washington University medical school, where she found only two female physician role models, both childless. She chose ob/gyn because it lets her "enjoy every aspect of patient care," but admits "it is a rough specialty for women balancing professional life and family needs."

After residency and fellowship at CWRU and the University Hospitals, David began practice as one of Cleveland's first full-time female obstetrician/gynecologists. She and Murphy have two daughters, and David readily shares with female students and residents her hard-won wisdom about juggling life choices "in a society where being 'superwoman' is probably an impossible goal."

Murphy, director of the division of endocrinology at Metro Health Medical Center and associate professor of medicine at CWRU, is likewise candid with students and residents about the challenges of the family balancing act. Students and faculty selected him to receive the Kaiser-Permanente Award for excellence in teaching at CWRU's 2003 medical school commencement.

Away from medicine, David serves on the Session of her Presbyterian church, gardens, reads mystery novels, and "moans about the Cleveland Indians."

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If it's not fun...

Devoted to medicine, Nancy and Henry Newlin run with the roadrunners

N A MOUNTAINSIDE NEAR Scottsdale AZ, in a new house built just for them, live Nancy S. Newlin, MD 62, and her husband Henry Newlin. "We step off the patio, and we're in the desert," he says. It's quite a change for a couple who spent most of their lives in the North, but the Newlins have never been afraid of change. Partners in adventure, this dynamic couple have made their homes in different parts of the country, pursued varied and challenging careers, and cultivated diverse interests with zest. Although they have been retired for four years, they haven't slowed down.

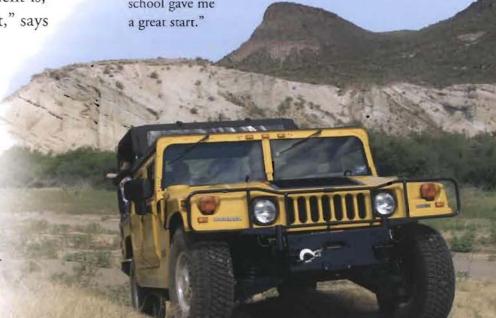
"Our rule for retirement is, if it's not fun, don't do it," says Nancy Newlin.

Perhaps it's the only way to travel where only roadrunners dare to go —Roadrunner Desert Adventures offers "personalized excursions of the Sonoran Desert in the Classic Hummer H1."

A brochure recommends sunglasses, hats, and closed-toe shoes for enjoying the kind of rugged outdoor experience the Newlins dearly love.

Fun, for Nancy Newlin, includes continuing to practice her specialty of radiology part-time. Radiologists are in short supply in this part of Arizona, and she fills in where needed. Henry Newlin, formerly a judge, is starting a new business called Roadrunner Desert Adventures in the Phoenix-Scottsdale area. He will be taking tourists into the desert in a Humvee, educating them on ecology and Native American history. Both Newlins are fitness enthusiasts who work out daily and participate in 100 km bicycle tours. They regularly travel back to Ann Arbor MI, to their undergraduate alma mater—the University of Michigan—to attend sports events. They enjoy cheering on the current holder of the women's basketball scholarship they established 15 years ago. "We meet a new daughter every year," Henry Newlin says.

This is only the beginning of their commitment to philanthropy. Great believers in education, they are making two schools—Michigan and Washington University School of Medicine—the equal beneficiaries of their entire estate. "My life has been devoted to medicine," Nancy Newlin says, "and Washington U. medical school gave me





Pass the rattlesnake repellant—you'd best be prepared when traveling with Nancy Newlin, MD 62 (left), and Henry Newlin, center.

She grew up in the Detroit area, and the pivotal event of her youth was her discovery of science in high school. A fascination with biology eventually led to a decision to attend medical school. Like most aspiring professional women of her generation, she found her determination tested. "People said, why do you want to go to school for four years? You should get married and have kids. I told them, there's nothing in the world I want to do as much as this."

Her years at medical school were, she found, only the beginning of a life-long educational process. Keeping up with new technology has been particularly demanding for the radiologists in her class. "Fortunately, the School of Medicine had given us a good foundation, so we could teach ourselves," she says.

Talking to patients remains a valuable skill

for physicians, Newlin believes, even though the new diagnostic tools are marvelous. "My door was always open, and patients could come in and talk about their diagnosis," she recalls. "Personal contact is important, because getting sick is a very personal thing."

Nancy Newlin sought the challenge of varied workplaces throughout her career. She practiced in large hospitals in New York City, and in a small hospital in rural Pennsylvania. While working in a group practice in upstate New York, she encountered an acquaintance from Ann Arbor days: Henry Newlin, who was then a college administrator. Romance bloomed between the two. They married, and Henry Newlin earned a law degree from the University of Buffalo. Now they faced the problem of finding a place to live where both could pursue their careers.

In the end, they wound up not far where they had started out—the town of Tecumseh MI, a short distance from Ann Arbor. This was their home for almost 30 years. Henry Newlin first was an attorney with a general practice, then a professor of law, finally a judge in state probate and juvenile court. "I got to do everything in the law one could do," he notes with satisfaction.

"My life has been devoted to medicine. Washington U. medical school gave me a great start." NANCY S. NEWLIN, MD 62

After practicing radiology at the University of Michigan for several years, Nancy Newlin became the sole radiologist at a small rural hospital, staying there for 16 years. During her first years there, an older generation of general practitioners retired, and a wave of younger physicians swept in. It was her responsibility to bring the radiology department up to new expectations. This took patience, persistence, and—when all else failed—offers to pay for new technology out of her own pocket. But she succeeded in guiding the hospital's board into the new era of mammography, CAT scans, ultrasound and teleradiology. "That's the accomplishment I'm proudest of," she says, "bringing that little hospital out of the dark ages."

She retired in 1998, and the couple said good-bye to the snows of Michigan and built their dream house in Arizona. Today they both spend a lot of time reading about and observing the flora and fauna of the desert. This is partly preparation for the tours Henry Newlin leads, but mostly for enjoyment. "We love the desert," he says. "We wouldn't live anywhere else."

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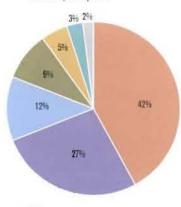


WUMCAA caps year of accomplishment

fter selecting alumni awards, naming scholarship honorees and distributing more than \$375,000 during the 2002–03 fiscal year, the Washington University Medical Center Alumni Association's Executive Council wrapped up a successful term. The Executive Council represented all medical alumni and former house staff as it deliberated over decisions and advised students. Council President Carlton S. Pearse, MD 78, reported on the group's accomplishments at the annual meeting during the reunion weekend in May.

The year's highlight came when the Executive Council made a major commitment to the soon-to-be-

WUMCAA Fund Allocation 2002–2003 Total: \$375,394



- Distinguished Alumni Scholarships
- Farrell Learning and Teaching Center
- Computers for students
- Ten student organizations and community service projects
- Other student-related activities
- Primary care preceptorships
- Academic and honor societies

built Farrell Learning and Teaching Center by pledging \$750,000 over the next 10 years. "This will be the main venue for biomedical education, serving medical and graduate students," says Pearse.

The Council also funded 16 Distinguished Alumni Scholarships and allocated \$35,000 to enable 10 student groups to do community outreach and professional development activities. Additional funding supported primary care preceptorships, computer equipment and other activities. During his presentation, Pearse reported that funding for these projects came from gifts made by alumni and former house staff to the Medical Teaching Fund.

Pearse praised the Executive Council members

and thanked them for their dedication to the School of Medicine. New officers and members were elected at the meeting and took office July 1, 2003.

WUMCAA Officers and Members 2003–2004

PRESIDENT

Brent T. Allen, MD 79, HS 86

PRESIDENT-ELECT

James W. Fleshman Jr., MD 80*

VICE PRESIDENT

Janet M. Ruzycki, MD 81*

TREASURER

Carolyn M. Martin, MD 76, HS 80*

PAST PRESIDENTS

Thomas R. Pohlman, MD 76 J. William Campbell, MD 77

Carlton S. Pearse, MD 78

LOCAL MEMBERS

Robert J. Baglan, MD 76 Edward F. Berg, MD 64 Mark E. Frisse, MD 78 James M. Goldring, MD 86* Katherine L. Kreusser, MD, HS 84

Carolyn M. Martin, MD 76 , HS 80

Thomas C. McKinney, MD 80

Amy Sullivan Nordmann, MD 98*

Edward P. Rose, MD 71

Marlys E. Schuh, MD 79

Donald A. Skor, MD, HS 84*

Jeffrey P. Tillinghast, MD 80, HS 88

Garry S. Tobin, MD 85, HS 90*

Alice W. Trotter, MD 69*

Alan Wild, MD, HS 88

OUT-OF-TOWN MEMBERS

Joseph H. Kent, MD 84, Chicago IL*

Colin T. McDonald, MD 93, Boston MA*

Jonathan A. Morris, MD 92, San Diego CA*

Barbara Quinton, MD, HS 71, Washington DC*

Pamela Gallin, MD 78, New York NY*

EX-OFFICIO MEMBERS

W. Edward Lansche, MD 52

James E. Marks, MD 65

Larry J. Shapiro, MD 71

Emily L. Smith, MD 68

Jason Stephenson,

Fourth-year Class President

Alison J. Whelan, MD 86, HS 89

....

* Newly elected

Distinguished Alumni Scholarship Honorees

Walter F. Benoist, MD 72

James W. Fleshman Jr., MD 80

Alexis F. Hartmann Jr., MD 51

Clay F. Semenkovich, MD 81,

HS 87

A believer in back-to-school

Association, Brent T. Allen, MD 79, has several reasons for agreeing to serve the School of Medicine.

"I feel privileged to be a Washington University alumnus. I enjoy the camaraderie within the alumni association," says Allen. "The reputation of the medical school is growing across the country and around the world. I am pleased to be associated with such a prestigious institution."

A vascular surgeon, Allen will lead the alumni association's 32-member Executive Council this year as it advises the School of Medicine on current issues and allocates funding to support student initiatives.

Allen earned a bachelor's degree from Utah State University before enrolling at the University of Nevada School of Medical Sciences. After completing two years of preclinical medical education, he transferred to Washington University School of Medicine where he completed his degree and graduated in 1979.



Brent T. Allen, MD 79, MBA 99

He stayed at the Washington University Medical Center for residency training, completing a surgical residency and surgical research fellowship at what is now Barnes-Jewish Hospital. A residency in vascular surgery at Baylor College of Medicine rounded out his training.

Allen joined the faculty at the School of Medicine in 1987, rising

New WUMCAA president

to associate professor of surgery in 1995 and associate professor of radiology two years later.

Then, to supplement his experience in research and clinical practice, he added another note to his repertoire by enrolling in Washington University's master's of business administration program in Health Services Management.

"There's a growing need for a business orientation to the practice of medicine," Allen explains. "I enjoyed going back to school for the MBA, and I think the training will be of great value to me in the future."

After finishing the MBA in 1999, Allen became a partner in his current practice, Suburban Surgical Associates Inc. He and his wife, Ellen Bauer Allen, have four children ranging in age from 2 to 12 years.

"I enjoyed my time at Washington University," Allen says. "I feel like I benefited greatly from the experiences and the training I had there." Presiding over the alumni association this year, he notes, is "an opportunity to give something back." ANNE ENRIGHT SHEPHERD



Amy C. Carpenter

Your Annual Fund has a friendly new face The medical annual fund has a new—but familiar—face. Amy C. Carpenter has been named the director of annual giving for the School of Medicine. Her familiarity with the program, coming from more than two years as its assistant director, allows her to step easily into her new role.

"School of Medicine alumni and friends are generous and committed to the school," says Carpenter. "I'm pleased to have the opportunity to work so closely with such outstanding people." In her new position, Carpenter oversees the school's direct mail outreach, manages gift efforts by alumni celebrating a reunion, and facilitates interactions with members of the School of Medicine Eliot Society.

After completing a BS in business administration from the University of Missouri, Columbia, Carpenter earned an MBA from the same institution in 1999. She joined the Office of Medical Alumni & Development Programs in October, 2000.

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News

A generous year!

he School of Medicine's annual fund drive—
the yearly solicitation of support for the school
—ended June 30, 2003. A total of \$2,330,534
was raised from alumni, former house staff, and friends.
Gifts to the annual fund support important programs
throughout the School of Medicine.

Outstanding accomplishments of FY 03

- The MD alumni Class of 1953, celebrating their 50th reunion, set a record-high participation rate of 78 percent.
- Overall MD alumni annual fund giving reached the \$1 million mark—a first in the annual fund.
- The Program in Health Administration has experienced an increase in annual fund participation for three consecutive years.
- Alumni from the Program in Occupational Therapy hit an all-time high in total giving.
- The Program in Physical Therapy alumni Class of 2002 developed a "PT Young Alumni Award" gift effort. Sixty-two percent participated in this special project.
- The MD Class of 2003 set a record-high participation rate of 69 percent in their senior gift effort.

"I AM AMAZED TO SEE
the breadth and depth of loyalty
and commitment among the
School of Medicine's alumni
and former house staff. Your
generosity makes an enormous
impact on the future of medicine
and the betterment of society.
I thank you all for your support."

LARRY J. SHAPIRO, MD 71 Executive Vice Chancellor for Medical Affairs and Dean of the School of Medicine

- Alumni Results by Program

nnua

PERCENT PARTICIPATION JULY 1, 2002-JUNE 30, 2003

MD–Alumni	39%
Physical Therapy	32%
Health Administration	30%
Nursing	27%
Occupational Therapy	22%
Former House Staff	17%

Young alumni set participation record

Each year, the graduating medical class continues a tradition of leadership and community service by raising funds for a senior gift to benefit the Washington University medical community. This year, the Class of

2003 created a monetary student award given in memory of Adam El-Khishin, Candice Lin and Danny Lee. In January 1999, all three were first-year medical students when they were involved in a tragic automobile accident that took their lives.

The monetary award will be given annually to a first-year student who (as voted upon by his or her classmates) consistently exemplifies enthu-



Pete Gabriel, MD 03

siasm, compassion and generosity toward others and possesses spirit, optimism and idealism about the field of medicine. These are a few of the qualities the class most admired in El-Khishin, Lin and Lee.

Under the leadership of Pete Gabriel, Class of 2003 president, 73 students, or 69 percent, participated in the gift effort. More than \$4,000 in gifts and pledges were raised toward the project.

As an added incentive to participate, the Washington University Medical Center Alumni Association agreed to match all gifts and pledges two for one.

C. Barber Mueller, MD 42, received an honorary doctor of science degree from McMaster University in Hamilton, Ontario, Canada, at the health sciences convocation there on May 16, 2003. Mueller is professor emeritus of surgery at McMaster.

Robert J. Glaser, MD, HS 47, was one of three receiving the Harvard Medal for extraordinary service to Harvard University during the annual meeting of the Harvard Alumni Association on June 5, 2003. He earned his undergraduate degree (1940) and his MD (1943) there and has been a Harvard faculty member. Glaser is well-known for his career in academic medicine and medical philanthropy. He has been dean of the medical schools at Stanford University and the University of Colorado and head of the Henry J. Kaiser Family Foundation and the Lucille P. Markey Charitable Trust. He is an emeritus trustee and former faculty member at Washington University, where he was the inaugurating chair of the School of Medicine's National Council. Glaser's granddaughter is a member of Harvard's class of 2003.

Ernst Wynder, MD 50, and William H. Masters, MD, **MS 43**, are two of three physicians associated with Washington University profiled in a recent book, Doctors and Discoveries: Lives that Created Today's Medicine, by John Galbraith Simmons. The third, Arthur Kornberg, MD, did research with Nobelists Carl and Gerty Cori and later, from 1953-59, headed the Department of Microbiology. Kornberg was co-winner of the Nobel Prize in 1959 for the discovery of DNA polymerase, the enzyme that builds molecules of DNA. Wynder, who died in 1999, produced much of the evidence linking smoking with lung cancer, and devoted his career to the study and prevention of cancer

and chronic disease. Masters, a longtime faculty member at the School of Medicine, was known for his research into the understanding and treatment of human sexual dysfunction. He died in 2001. Doctors and Discoveries tells the story of Western medicine through the lives of its most influential figures, chosen for their relevance to contemporary medicine. With three of the 86 profiles in the book, Washington University has more representatives than does any other university.

Margaret Isringhausen Winters, NU 53, of Brighton IL, was inducted into the National Association of School Nurses (NASN) Academy of Fellows at the Association's 35th annual conference on June 30, 2003, in Cincinnati OH. Winters is one of five new inductees this year, and the first to be named from Illinois. To date, the 11,000member association has selected 75 school nurses for this honor, the highest recognition a member can receive. It signifies unique and extraordinary contributions to the specialty of school nursing and the association. Winters was cited for demonstrating excellence through a variety of experiences that have had an impact on the health care of children and have contributed to the practice of school nursing on a statewide and national level. She was employed as a nurse in the Southwestern Community Unit School District 9 at Piasa IL from 1967-1987. After retirement, she served as the executive secretary for the Illinois Association of School Nurses for 12 years, retiring from that position in 2002.

Stephen Banko, MD, HS 66, writes that he and his wife have been married for 47 years and have four children and four grandchildren. He is the coroner of Richland County in Ohio, and a member of the Ohio State Coroner's Association. He participates in Fatality of Child Review and is a

member of the Ohio Academy of Science and the Malabar Foundation.

Dennis Cooper, MD 71, led a hiking group to Ute Tribal Park just south of Cortez CO, in April 2003, to visit Anasazi ruins abandoned in the late 1200s. Five of his classmates from the Class of 71 were among the group of 17, plus guides. They were Drs. Jerry Aronberg, Phil Hertzman, Joe Corrigan, Jane Diedrichsen and Dave Diedrichsen. Cooper, an ophthalmologist in Scottsdale AZ, writes that "the weather was perfect. My thighs may eventually recover."

Dennis D. Spencer, MD 71, chairman of neurosurgery at Yale University, has been named acting dean of Yale's medical school, filling the position vacated by Dr. David A. Kessler, who has become dean of the medical school at the University of California at San Francisco. Spencer joined the Yale faculty in 1977. He is known for his research in Parkinson's disease and for his development of a widely used surgical approach for patients with temporal lobe epilepsy.

Carlos H. Espinel, MD, HS 71, is the author of an article, "The portrait of breast cancer and Raphael's La Fornarina," published in the December 2002 issue of Lancet. In the article, Espinel discusses Raphael's famous portrait of his beloved and concludes that it shows perhaps the first graphic evidence of breast cancer, and precedes all reported depictions of breast cancer in art. The cancer itself was not identified or described until a century after Raphael's death. The painting has been a source of puzzlement because of the marked difference in appearance between the subject's right and left breasts; Espinel observed five clinical signs of advanced cancer in the left. He is clinical professor of medicine at Georgetown University and director of the Blood Pressure Center in Washington DC.

Roslyn Kaplan Yomtovian, MD 74,

was promoted July 1 to professor, Department of Pathology at Case Western Reserve University School of Medicine in Cleveland OH. Her specialty is transfusion medicine.

Susan Cigelman, PT 76, EdD, recently became academic dean for the AIB College of Business in Des Moines IA. Dr. Cigelman had been an administrator and faculty member for the division of physical therapy at Des Moines University's Osteopathic Medical Center since 1987.

Michele Flicker, MD 76, is working at Merck in New Jersey as a liaison to the Federal Drug Administration. She writes, "My husband, Gary, retired as a homicide detective, became a boardcertified forensic death investigator, and is also studying nursing (!). I still have family in Kansas City (mother and "baby" brother) and a brother who practices internal medicine in California... So sorry I missed last

year's reunion; would love to hear from classmates and how they are doing." (Her e-mail address is available on the School of Medicine alumni web site.)

Diane Davis Davey, MD 81, has been elected to a I four-year term as a trustee of the American Board of Pathology, with the option of renewed terms. Davey is professor of pathology and laboratory medicine, director of the cytology and bone marrow laboratories and director of the cytopathology fellowship program at the University of Kentucky Chandler Medical Center in Lexington. She has been honored there with a Woman of Achievement Award and a Master Teacher Award. Davey is an active member of the College of American Pathologists (CAP) and a pastpresident of the American Society of Cytopathology. In 2001, CAP

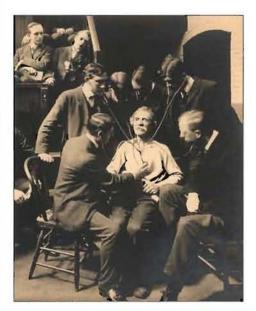
honored her with the William I.. Kuehn, PhD, Outstanding Communicator Award.

Bancroft O'Quinn Jr., MD 81, is one of seven community leaders in Wilson County TN who are organizing a new bank, CedarStone, and who will serve as the bank's initial directors. The bank will be located in Lebanon TN, where O'Quinn is a surgeon and member of the Chamber of Commerce.

Robert B. Darnell, MD, PhD 83, writes that he is the "second graduate from my class (Daniel Goldberg is the other) to become a Howard Hughes Medical Investigator." They are among 12 of the nation's top physician-scientists recently appointed Howard Hughes Medical Institute Investigators in a program to improve the translation of basic science discoveries into enhanced treatments for patients. Darnell, a neuro-oncologist, is professor of neurology and head of a laboratory at Rockefeller University in New York, as well as an affiliate professor of neurology and neuroscience at Cornell University Medical College. He studies how a rare group of patients develop immune responses able to recognize that they have cancer and defeat those cancers. These patients have such a successful attack against their own tumors that they do not know they have cancer, but present to physicians when this immune attack turns against their own body, causing degenerative diseases in the brain. These studies have revealed secrets about the special nature of the proteins within the brain and the means by which the immune response gets triggered. Darnell is now opening the first of several clinical trials aimed at harnessing the immune system in a new way to try and suppress cancer. In 2002 he was also honored with election to the Harvey Society.

Tracy A. Oliver, PT 85, continues to work in an on-call position at various

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nursing homes in Ft. Collins CO. She is also active in the schools of daughters Sarah, 12, Amy, 11, and Emily, 7.

Steven Sams, MHA 85, recently was elected to a two-year term on the Board of Managers of the Indianapolis Bar Association. He is an attorney with a solo practice and primaily represents plaintiffs in matters involving employment discrimination, general civil litigation, personal injury and family law matters. Prior to completing his law degree at Indiana University, he had been vice-president of the Indiana Blood Center; he served as general counsel there for several years before opening his private practice.

Jack Cribb, PT 93, has completed the first vear of Michigan State University's College of Osteopathic Medicine program. He still owns his private physical therapy practice. He and his wife, Stephanie, have two children, Garrett and Sophia.

W.M. "Trey" Long III, HA 93, has been promoted to director of operations of Pediatrix's Medical Group, Mountain Region. He writes, "I have been with Pediatrix for five years, in the Texas region office located in Dallas, and will be moving to Phoenix AZ for this new position. Pediatrix is the largest provider of neonatal and maternal fetal physicians."

Andrea Pennington, MD 98, was a guest on the "Oprah Winfrey Show" on May 30, 2003, on a program that addressed the growing concern about young people under the age of 40 who are falling victim to diseases such as hypertension and diabetes. Pennington, who is medical director and spokesperson for the Discovery Health Channel, discussed the diseases and methods of prevention.

Tracy Lawrence, MD 99, of Los Angeles CA, has just completed a chief residency year in internal medicine and will be starting a fellowship in cardiology.

Amanda Warner, PT 00, is practicing in the Missouri's First Steps Program for newborn to three-year olds. She is taking time off for maternity leave to be with her daughter, born on May 15, 2003.

Bridget Blunk, PT 01, writes that her husband, Rich, "graduated from Rush Medical School, and we moved to his place of residency near Dayton OH."

IN MEMORY

Theresa C. Burmeister, OT 42, died September 2, 2003, in St. Louis at age 89. She practiced occupational therapy for 41 years. During World War II, she served in the U.S. Navy as an officer in the Hospital Corps and retired from the Medical Service Corps as a Lt. Commander. Among her survivors is a sister, Catherine Warren.

Wolfgang Froelich, MD, HS 60, died in July, 2000, of a heart attack while swimming. A neurologist, he had lived in Cedar Park TX.

Timothy B. Powers, MD 84, died of lymphoma at Providence Alaska Medical Center in Anchorage on May 10, 2003, at the age of 48. A native of St. Louis, Powers had practiced orthopaedic surgery in Soldotna AK, since 1992. He was on staff at Central Peninsula General Hospital and a member of the board of directors of Central Peninsula Health Centers. After graduation from medical school, he completed his residency at Blodgett Memorial Medical Center in Grand Rapids MI, then, during the Russian occupation of Afghanistan, volunteered with Orthopedics Overseas and Freedom Medicine in Peshawar, Pakistan. Survivors include his wife, Tina; his children, Chad, Stephanie, Tina Colleen, Erin and Linnea; his mother, Linnea Ann Powers, three

brothers and a sister. Memorials may be made to Central Peninsula General Hospital Oncology/Infusion Department, 250 Hospital Place, Soldotna AK 99669.

William W. "Bill" Monafo, MD, HS 61, emeritus professor of surgery at Washington University and a nationally recognized expert in burn treatment, died July 4, 2003, of cancer at his home in St. Louis. He was 71. He earned his medical degree from Tufts Medical School in 1957, then did his surgery residency at Barnes Hospital and joined the School of Medicine faculty. He went to St. John's Mercy Hospital in 1966, where he established the burn unit and served as chief of surgery. In 1979, he returned to Barnes Hospital to direct its burn center and attained the rank of professor at Washington University. He was among the first to introduce an effective topical antibacterial treatment for burns, and his work helped to dramatically increase the survival rate of seriously burned patients. Monafo was also involved with Shriners Hospital for Children, serving as chairman of the hospital's Medical Advisory Board for six years. He was the author of more than 100 publications. One of the founders and a past-president of the American Burn Association, he was active in a number of professional societies, including the American College of Surgeons and the Royal Society of Medicine. He was the U.S. representative to the executive committee of the International Society for Burn Injuries. His honors included the Harvey Stuart Allen Distinguished Service Award. Survivors include his wife of 43 years, Jamie M. Monafo; two sons, William J. Monafo, MD 87, and James F. Monafo; a daughter, Katherine Kennon, and seven grandchildren. Memorial contributions may be made to Washington University School of Medicine.

What a Legacy!



Jackson Johnson 1859-1929

In 1929 a bequest from Jackson Johnson, Chairman of International Shoe, established the Jackson Johnson Scholarship at Washington University. Since then—for one-half of the University's history—the Jackson Johnson Scholarship has assisted more than 700 medical students including:

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Washington University in St. Louis School of Medicine

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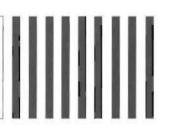
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Washington University School of Medicine

May 6-8 2004

Mark your calenders now and plan to meet your classmates in St. Louis at Reunion 2004!

Find information on the web at: medicine.wustl.edu/alumni

Registration materials will be mailed in February.

AD classes of: '44 '49 '54 '59 '64 '69 '74 '79 '84 '89 '94



A Hearth of Learning The Farrell Learning and Teaching Center breaks ground fall 2003 at the School of Medicine. The new facility, located at the corner of Scott and Euclid avenues, will house teaching spaces and hearth areas where medical and graduate students can interact with faculty. For more on this story, please turn to page 12.



SCHOOL OF MEDICINE

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