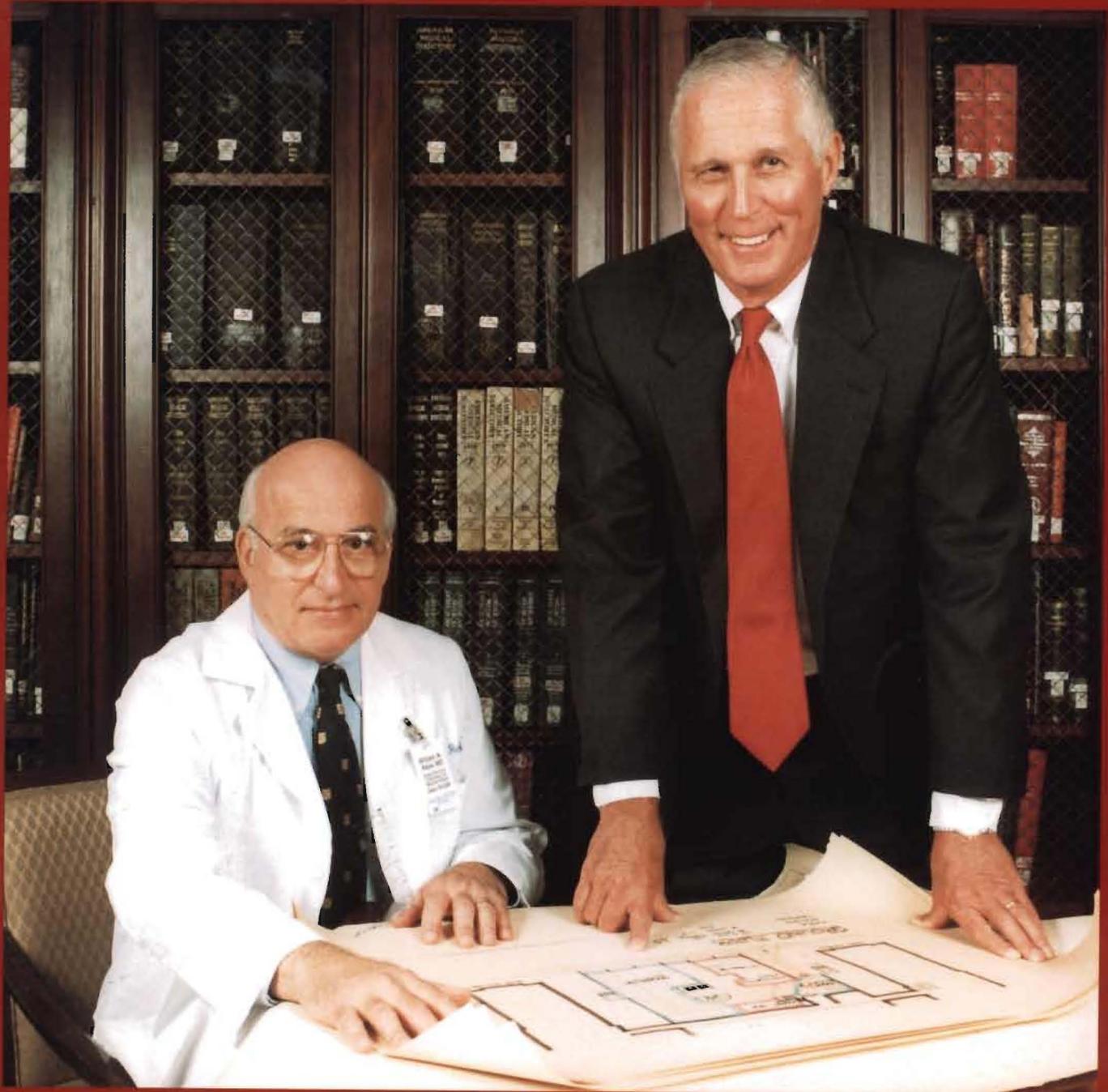


# Outlook

Washington University School of Medicine

Fall 1998



**Campaign For Washington University**

*A Partnership For The 21st Century*

## WE TOOK CARE OF JACK AND ABBY...



## ...SO THEY CAN TAKE CARE OF BUNNY.

Thanks to innovative cardiac surgery pioneered at America's teaching hospitals and medical schools, Jack and Abby are going to be OK. They are yet another example of the medical miracles we've been delivering for decades.

Development of the first hip replacement. Ultrasound detection of prostate cancer. Pioneered heart, lung, liver and

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Tomorrow's Doctors. Tomorrow's Cures.**



**Advocacy Campaign:** This is another in a series of print advertisements designed to increase awareness among opinion leaders about the missions of teaching hospitals and medical schools. Advertisements similar to this one were produced by the Association of American Medical Colleges (AAMC) and are being used by advocacy campaign coordinators on many medical school campuses nationwide. To learn more, visit the website at [www.aamc.org](http://www.aamc.org).

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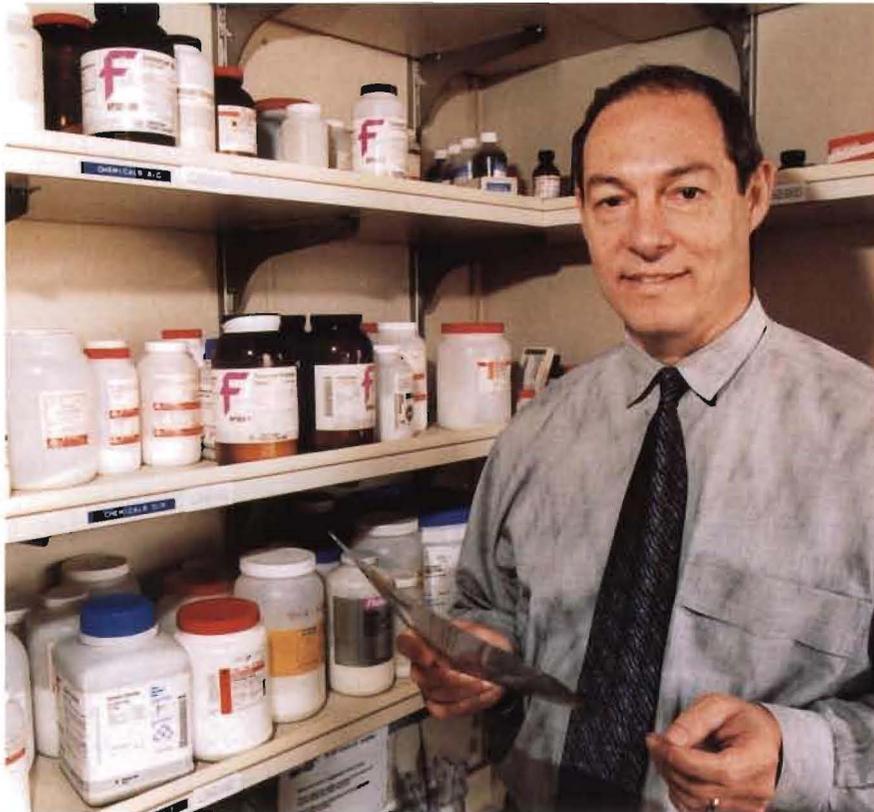
C I R C U L A T I O N

# Outlook

Washington University School of Medicine



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## THE COVER

William A. Peck, MD, executive vice chancellor for medical affairs and dean of the School of Medicine, left, and Andrew Craig, retired chairman of the board of NationsBank Corp., chart the course for the School of Medicine's capital campaign to raise \$400 million by June 30, 2004. Craig is chairing the School of Medicine's effort. The Campaign for Washington University, with a university-wide goal of \$1 billion, kicked off Sept. 19. For more on the campaign, turn to pages 16 and 28.



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## Shackelford Directs New Pediatric Ambulatory Medicine Division

**P**ENELOPE G. Shackelford, MD, professor of pediatrics and associate professor of molecular microbiology, has been named director of the new division of pediatric ambulatory medicine.

The division of pediatric ambulatory medicine, which started July 1, includes services at St. Louis Children's Hospital and Missouri Baptist Hospital.

"Penny Shackelford brings clinical excellence, administrative savvy and vision to our growing programs in pediatric ambulatory medicine," says Alan L. Schwartz, PhD, MD, Harriet B. Spoehrer Professor and head of the Department of Pediatrics.

In her new role, Shackelford will oversee the ambulatory specialty services of the Department of Pediatrics. She will organize and direct the multispecialty ambulatory practice, including preregistration, scheduling, coordination of care, patient and physician satisfaction,



*Penelope G. Shackelford, MD*

and the integration of these services with the Washington University Faculty Practice Plan and Children's Hospital. She also will study the development of educational models for residents and students in an ambulatory center of specialized pediatric care.

Her research interests include the development of the immune system, focusing on antibodies that bind to bacterial polysaccharides — the coat that allows bacteria to

evade the body's defenses. She now is working on programs to improve the immunization rate among children who receive care in the BJC Health System. Her clinical interests are in general pediatric infectious diseases and in children with recurrent infections and immune deficiencies.

She is a member of Alpha Omega Alpha, the national honorary medical society, the American Society of Microbiology, the American Academy of Pediatrics and the Society for Pediatric Research.

Among her numerous awards are the 1989 Washington University Teacher of the Year Award, a Washington University Distinguished Faculty Award in 1992 and a Washington University School of Medicine Alumni Faculty Award in 1998.

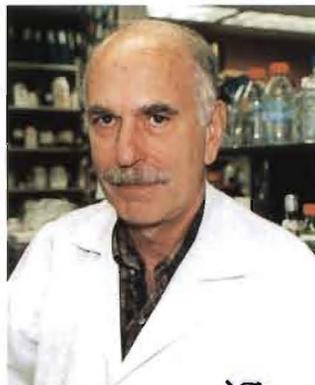
Shackelford served as director of the division of pediatric infectious diseases from 1993 to 1998. ●

## Bristol-Meyers Squibb Recognizes Majerus For Research

**P**HILIP W. Majerus, MD, professor of medicine and biochemistry and molecular biophysics, received the 1998 Bristol-Meyers Squibb Award for Distinguished Achievement in Cardiovascular/Metabolic Research.

Majerus, who is co-director of the division of hematology and oncology and a physician at Barnes-Jewish Hospital, was recognized for his research in the 1970s on the use of low-dose aspirin to prevent blood clotting in kidney dialysis patients. His study also suggested that aspirin could help healthy people reduce their risk of heart attack, stroke and other conditions, which has been confirmed in subsequent studies.

Majerus initially studied the role of platelets in blood clotting. He identified receptors on the surface of platelets that are bound by



*Philip W. Majerus, MD*

clot-promoting factors in the blood. This interaction accelerates the activation of another clot-promoting factor, called prothrombin, and results in rapid, localized formation of a blood clot.

He also helped determine how aspirin inhibits platelet function and therefore blood clotting. In

long-term aspirin users, this effect can cause bruising and internal bleeding that at first made routine medical use of aspirin appear risky.

Majerus discovered that aspirin works in part by inhibiting the activity of an enzyme that helps form blood clots. This cyclooxygenase helps synthesize a factor that makes platelets clump and blood vessels constrict. Majerus showed that aspirin inhibits this activity for the two-week life span of a platelet. However, his kidney dialysis study demonstrated that a low aspirin dose avoids bruising and bleeding complications.

Recently, Majerus has been investigating cell responses to chemical signals such as growth hormones. ●

## Pediatric Research Society Honors Gitlin

**J**ONATHAN D. Gitlin, MD, professor of pediatrics and director of the division of pediatric immunology and rheumatology, has received the 1998 E. Mead Johnson Award for Pediatric Research.

Gitlin was one of three researchers to receive the award from the Society of Pediatric Research.

Gitlin, who also is a professor of pathology and staff physician at St. Louis Children's Hospital, is a leading authority on the role of copper and iron in human biology. In 1993, he and two other groups discovered the gene for Wilson's disease, an inherited metabolic disorder that

causes copper to build up in the brain and other organs, leading to brain degeneration and cirrhosis of the liver. Two years later, Gitlin and his colleagues identified aceruloplasminemia, which causes a rare form of Parkinson's disease. People with this disorder accumulate large amounts of iron in their brains' basal ganglia. This causes tremors, gait abnormalities and eventually death.

Gitlin has received numerous other awards for his work, including the Pfizer New Faculty Scholars Award, the Regina Loeb Award of the National Arthritis Foundation and a Burroughs Wellcome Fund Scholar Award in Experimental Therapeutics. ●

## Laurysen Earns Young Investigator Award

**C**ARL Laurysen, MD, assistant professor of neurological surgery, has received the 1998 Young Clinician Investigator Award from the American Association of Neurological Surgeons.

The award will enable Laurysen and colleagues to determine whether patients with compression of the cervical spinal cord actually benefit from a common surgical procedure.

Surgeons treat the spinal condition, known as cervical spondylotic myelopathy, in one of two ways. Either they make an incision in the back of

the neck and reconstruct the posterior parts of the diseased vertebrae, or they enter from the front and reconstruct anterior portions. Very often, they have to repair the spine at more than one level.

The first patient in the study, Ira Teer, 65, already has been evaluated. Teer had almost lost use of her

left arm, had little balance, difficulty walking and was losing control over her bowel and bladder. After Laurysen operated on her cervical vertebrae last August, she said she was gaining strength and walking better. She also reported that her

limbs were much less spastic. But instead of relying solely on Teer's subjective reports, the researchers obtained objective data that proved she was functioning much better.

Tests performed before and after surgery, and three and six months later, showed that Teer's movements after surgery were quite dif-

ferent from those before. Her spasticity had disappeared, and her strength had increased dramatically. Her gait also was normal.

"A lot of surgeons do this procedure, but we have never before been able to document that it actually improves function," Laurysen says. ●



Carl Laurysen, MD

## Janssen Award Goes To Clouse

**R**AY E. Clouse, MD, professor of medicine in the division of gastroenterology, received a Janssen Award in Gastroenterology.



Ray E. Clouse, MD

Clouse is among four winners of the Janssen Award for Basic or Clinical Research in Gastrointestinal Motility. The awards were initiated in 1995 to recognize dedicated clinicians and investigators who have made outstanding contributions to gastrointestinal research and patient care.

Clouse is a pioneer in the understanding of gastrointestinal motility — how the intestinal tract moves food from the mouth through the gut. In particular, he studies the esophagus, working to better understand the relationship between motility and disease, between emotional disturbances and motility disorders and the relationship between the brain and the gut.

Using catheters to measure pressure in the esophagus, Clouse has mapped the contractions that allow food to pass through the organ. Using computer technology, he has been the first to map those movements in a three-dimensional, topographic way to better understand the sometimes very minor differences between healthy function and disease of the esophagus. ●

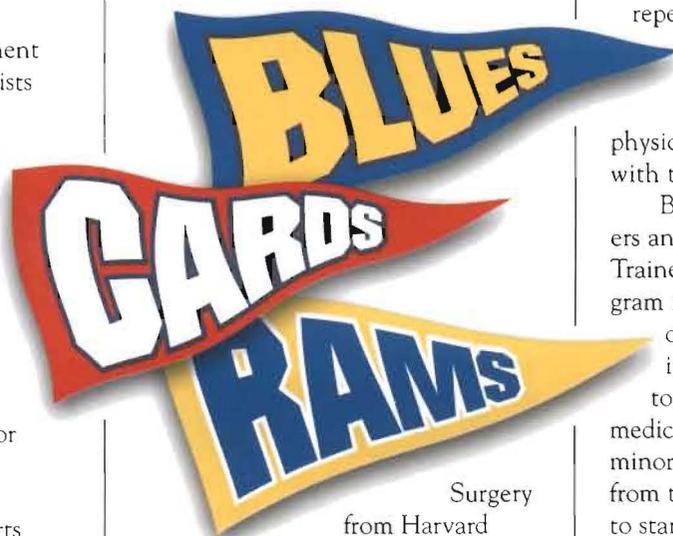
## Physicians Score With St. Louis Sports Teams

**P**HYSICIANS from the Department of Orthopaedic Surgery will provide medical services for the entire St. Louis Cardinals' organization.

The orthopaedics department and its sports medicine specialists will work together with other Washington University physicians to provide comprehensive medical care on a daily basis and in emergency situations. Those services include preseason, pre- and postgame evaluations and physician presence at games. The doctors also will use a computerized system to monitor injuries and develop an injury prevention program.

All three professional sports teams in St. Louis now use Washington University faculty physicians as their team doctors. The Cardinals, Blues and Rams have chosen the Department of Orthopaedic Surgery and BJC partly in recognition of the high level of expertise that has

been recruited since the arrival here of Richard H. Gelberman, MD, Fred C. Reynolds Professor and head of the Department of Orthopaedic



Surgery from Harvard Medical School in 1995.

Washington University faculty physicians also will serve as consultants for the Cardinal's minor league affiliates, and BJC Health System will provide inpatient hospital services for the Cardinals.

Because baseball players play almost every day throughout a long season, many of their injuries involve the cumulative effects of repetitive stress and strain.

Common problems include hamstring, back, shoulder and elbow injuries, and the physicians will battle those problems with the help of computers.

BJC is providing laptop computers and a software program called Trainers' Wizard<sup>®</sup>. The software program is now used by a handful of other major league teams, and it should enable the physicians to better monitor all injuries and medical problems for both major and minor league players. Information from the program then will be used to standardize a new strengthening and conditioning program that will be used for all pregame, warm-up exercises throughout the season. Physicians say that should help the Cardinals players avoid many of the injuries that keep players from performing at their maximum ability. ●

## Dedication Honors Prominent Physician-Educators

**T**HE 12th floor of the Rand-Johnson and Queeny Tower buildings on the south campus of Barnes-Jewish Hospital has been dedicated as the Shatz-Strauss Firm, honoring Burton A. Shatz, MD, and Arthur Strauss, MD, highly regarded School of Medicine clinicians.

The medical school's internal medicine residency program is divided into four firms or health care teams, each of which is assigned to one floor in Barnes-Jewish Hospital. The purpose of the firm system is to facilitate the interactions of nurses, social workers, residents, attendings, and others involved in patient care, by assigning them to small groups to strengthen the team approach to medicine. Firms A, B and C have existed for several years at Barnes-

Jewish south; Firm D was established last year when the Internal Medicine Training Program at the former Jewish Hospital was relocated to Barnes-Jewish south. Each firm is named after prominent internists who have practiced and taught at the School of Medicine and Barnes-Jewish Hospital.

Shatz, an active member of Firm D, attended college and medical school at Washington University, where he was elected to AOA. He trained in medicine at The Jewish Hospital of St. Louis and did an additional year of training in pathology at the former City Hospital before completing a gastroenterology fellowship at Barnes Hospital. He was director of the GI endoscopy lab at Jewish Hospital for 44 years and helped establish the GI

division there. Among his honors are the Leadership Award from the American Cancer Society and the Distinguished Clinician Award from the Gastroenterological Society.

Strauss, who is deceased, attended Harvard Medical School and trained in internal medicine and cardiology at Brigham & Women's Hospital prior to coming to St. Louis. He was the leading cardiologist at Jewish Hospital for many years and served as chairman of the Department of Medicine there from 1949 to 1952. Highly regarded as a physician and educator, Strauss' clinical acumen and high ethical standards established him as a role model for generations of young doctors in training. ●

## Glaser Receives Eliot Society Award For Service To University

**R**OBERT J. Glaser, MD, a national leader in medical education and emeritus trustee of Washington University, received the 1998 William Greenleaf Eliot Society Award, the university's most prestigious honor.

The award was announced at the society's annual dinner in June.

The Eliot Society was founded in 1959 in tribute to the university's founder. Since then, the generosity and support of the society's members have contributed to the growth and success of the university. Glaser and his wife, Helen Hofsommer Glaser, MD '47, are life members.

Glaser, a biomedical consultant, serves as chair of the School of Medicine's National Council, a 24-member committee that helps chart the School of Medicine's direction. Helen also is a member of the council.

From 1984 to 1997, Glaser was a trustee and director for medical



*William H. Danforth, chairman of the university's Board of Trustees, left, with Helen Hofsommer Glaser, MD, and Robert J. Glaser, MD.*

science of the Lucille P. Markey Charitable Trust, which provided basic biomedical research grants totaling \$500 million until its scheduled closing last year. Before joining the Markey Trust, Glaser was the first full-time president and chief executive officer of the Henry J. Kaiser Family Foundation,

another medically oriented foundation.

Among numerous other contributions to Washington University, the Glasers underwrote the gallery at the entrance of the History of Medicine Library in The Bernard Becker Medical Library and Biomedical Communications Center and endowed a visiting professorship in the Department of Medicine. In addition, they established a book fund in honor of Helen's mother, Aphrodite Jannopoulo

Hofsommer, one of the first women admitted to the School of Medicine.

Glaser was elected to Washington University's Board of Trustees in 1979, and he continues to serve on the board's educational policy committee, which he chaired for more than a decade. In 1988, he received an honorary doctor of science degree from the university. ●

## A Rite Of Passage



First-year medical student Mythili Suntharalingam dons her white coat with assistance from Will R. Ross, MD, associate dean and director of the Office of Diversity Programs, at the annual White Coat Ceremony on Aug. 14. At the event, Suntharalingam and 120 other first-year medical students were presented with their white coats, long a symbol of the medical profession.

## News On The Net

**A** NEW web site with information about the Graduate Medical Education (GME) Consortium formed by the School of Medicine, Barnes-Jewish Hospital and St. Louis Children's Hospital is up for viewing at [medicine.wustl.edu/gme](http://medicine.wustl.edu/gme).

The consortium sponsors 74 training programs, 62 of which are accredited by the Accreditation Council for Graduate Medical Education (ACGME), that continue the institutions' long histories of successfully training outstanding residents and fellows in various areas of medical education, research and patient care. The new web site contains information about the GME consortium, departmental programs, a calendar of events and GME news. ●

## Stroke Risk Increases With High Oxygen Use In The Brain

**B**Y measuring oxygen use in the brain, School of Medicine researchers can determine which patients with blocked carotid arteries are at high risk for a stroke.

The findings, reported in the Sept. 23/30 issue of the *Journal of the American Medical Association*, could have implications for reviving a discarded surgical procedure that increases blood flow to the brain.

Robert L. Grubb Jr., MD, William J. Powers, MD, and colleagues report that patients with complete blockage of the carotid artery and a condition called hemodynamic failure, face a stroke risk six to seven times greater than those with just a blocked carotid artery. Hemodynamic failure occurs when the brain is not receiving the

normal amount of oxygenated blood.

Using positron emission tomography (PET), the investigators measured both blood flow and oxygen metabolism in the brains of study subjects, and were able to determine whether patients were in hemodynamic failure. They studied 81 patients over four years. All had complete blockage of one of their carotid arteries and had suffered either a stroke or a transient ischemic attack, which has similar symptoms to stroke but resolves itself in a few hours.

Of the 81 patients studied, 39 had PET scans that showed increased oxygen extraction, and 42 had normal scans. In the group with increased oxygen extraction, 12 patients suffered strokes. Only three

of the patients with normal oxygen extraction rates had strokes.

The investigators say that surgical therapy may be helpful and want to revisit a surgical technique called extracranial-intracranial (EC-IC) bypass surgery. In the operation, a neurosurgeon takes an artery outside of the brain and connects it to a vessel inside the brain.

"The idea is very similar to what cardiac surgeons do in heart bypass surgery," says Grubb, the Herbert Lourie Professor of Neurological Surgery and a professor of radiology. "Theoretically, if you can improve blood flow to the brain, you can reduce the risk of stroke."

Powers and Grubb plan to test the surgery only in patients with known hemodynamic failure. ●

## Two Sides May Be Better Than One

**I**F you see a gunman fleeing from a bank, how do you remember the bank's name and the gunman's face?

A new study shows that when you're told to remember a word, you activate a region on the left side of your brain. When you're told to remember an unfamiliar face — something to which you can't attach a name — you activate a region on the right. Interestingly, both regions become active when you're asked to remember an object, such as a gun, that has a name.

Steven E. Petersen, PhD, professor of neurology, neurobiology and radiology, heads the research team that performed the study.

The researchers were addressing a long-standing debate about encoding, the first of three stages of memory. The others are storage and retrieval. Psychologists studying patients with brain damage have concluded that people use the left side of the brain for language tasks and the right side for handling spatial and pictorial information. But

scientists who make images of the brain at work have concluded that the left side is used for memorization and the right for retrieval.

Petersen noticed that most of these images were made while subjects memorized words or sentences. So he designed a study to test the effects of nonverbal information.

Using functional magnetic resonance imaging (fMRI), two experiments were performed. In the first, the researchers imaged five subjects who were asked to memorize written words, line drawings of objects and pictures of faces they would be unable to name. Subsequent testing showed they remembered the words, nameable objects and unfamiliar

faces very well, though they did best with nameable objects.

Then five different subjects were asked to memorize the test

images. At a later time, they were asked to just look at them.

"The main conclusion from this study is that regions in the frontal lobe can be affected by the type of material you are trying to memorize," says graduate student William M. Kelley. "But an interesting tidbit is that performance was best with nameable

objects, which activated both sides of the brain. So in a sense, two sides are better than one. If you use both sides, you're more likely to remember an object later." ●

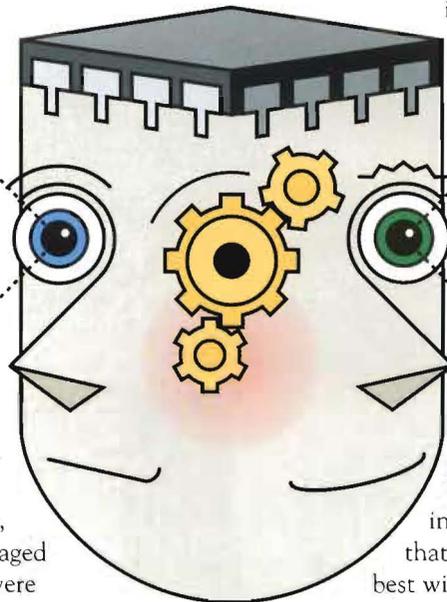


Illustration by Chrs Callan

## '7 Steps' Provides Road Map To Quit Smoking

**A** WASHINGTON University professor and the American Lung Association have teamed up to help smokers kick the habit by writing a book to help them.

Called "7 Steps to a Smoke-Free Life," the book is based on the American Lung Association's award-winning Freedom from Smoking program. Both the book and the program are designed to help smokers better understand their addiction and prepare to quit.

"The more you identify the reasons why you smoke and the reasons you want to quit, the more likely you'll be successful," says Edwin B. Fisher Jr., PhD, professor of medicine, psychology and pediatrics and co-author of the book. Fisher also directs the School of Medicine's division of health behavior research.

According to the lung association, an estimated 46 million Americans smoke cigarettes, and some 32 million would like to stop. Each year, 34 percent of smokers try to quit. Most fail, at least at first.

In the book, Fisher draws on his own experience as a smoker who has faced the prospect of trying to quit.

Fisher gave up smoking 20 years ago, but says he used many of the strategies outlined in the new book. It's important to set a quit date, identify



*Edwin B. Fisher Jr., PhD*

the environmental cues that make you want to smoke, tell friends that it's time to quit and stay positive even if the first few attempts fail.

The seven steps form a road map for those who want to quit:

- Recognize your habit and your addiction. There are two basic reasons for smoking: nicotine addiction and pleasure. Paying more attention to when you smoke and what makes

you light up can help you develop strategies for quitting.

- Build your motivation to quit. List the pros and cons of smoking and quitting and write down your top five reasons for quitting.

- Develop a quitting plan. Would you rather go it alone or with a group? Would quitting cold turkey be preferable to gradually reducing your nicotine intake? Do you want to use medications to boost your efforts?

- Set a quit date.
- Quit. Get rid of all of the cigarettes, ashtrays, matches and lighters in the house. Keep your top five quitting reasons with you and refer to them when you crave a cigarette.

- Maintain your program for the first two weeks. The cravings will subside and you will begin to feel better in a few days, though irritability, nervousness, sleep problems, difficulty concentrating and coughing may last for a few weeks.

- Survive the first six months. The physical addiction subsides after a week or two, but psychological cues can still give you the urge to light up. ●

## Combat Has Little Influence On Health Problems In Vietnam Vets

**I**NVESTIGATORS at the Veterans' Affairs Medical Center and the School of Medicine have found that the psychological trauma of combat had little effect on the physical health of Vietnam veterans 20 years after their experience in Southeast Asia.

Studying more than 4,700 pairs of identical and fraternal twin brothers who served during the Vietnam War, researchers found that combat played only a minor role in health problems such as hypertension, respiratory difficulty and gastrointestinal disorders. The findings, reported in the Sept. 23 issue of the journal *Psychosomatic Medicine*, show that inherited factors and

environmental experiences not related to combat explain more than 90 percent of reported health problems.

Past studies that have suggested an association between combat and physical health lacked adequate control groups, according to principal investigator Seth A. Eisen, MD. He says that while it is relatively easy to find subjects exposed to substantial psychological stress from combat, it is difficult to find an appropriate control group, individuals who are very similar yet lack combat exposure.

Because the twins in this study were raised in the same households, they are as similar to each other as

possible prior to entering military service. Identical twins have exactly the same genes, and fraternal twins share about half of their genes, so the sample allowed investigators to separate inherited factors from environmental.

In all, combat experiences explained no more than 10 percent of the health problems reported by veterans. By contrast, Eisen and colleagues from the University of Illinois, St. Louis University, Boston University and Harvard Medical School found that inherited factors and environmental experiences other than combat were much more important in determining whether health problems developed. ●

# ASTHMA ALERT

## Medical School Physicians Attack Disease On Clinical And Research Fronts

**BY CANDACE  
O'CONNOR**

**L**ike veteran storm watchers, longtime asthmatics learn to spot the hazy signs that another episode is coming. They may feel tired, short of breath, or they might cough a bit when they exercise. Some children may start to sleepwalk or complain of a little scratchiness in their throats.

And if they don't act quickly — inhale a bronchodilating medicine, for



*Michael J. Holtzman, MD, director of the division of pulmonary and critical care medicine, says asthma is a national health care problem that affects up to 10 percent of adults and children in the United States.*

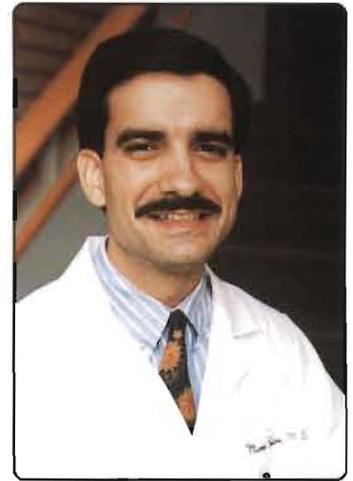
example — they may find themselves in the midst of a full-blown asthma attack. Inflamed by a “trigger” such as allergy or viral infection, their airways become dangerously narrowed. They cough, wheeze and feel alarmingly short of breath. If they remain untreated, some will die.

Asthma — a disease that affects 12 million to 15 million people nationwide — is a growing health care concern. It is the leading chronic illness among children. And its effects resonate throughout the medical system, as the number of emergency department visits and hospital stays continue to climb steeply. At Barnes-Jewish Hospital alone, asthma-related hospitaliza-

tions have quadrupled over the past decade.

“From a public health standpoint, asthma is a major problem,” says Michael J. Holtzman, MD, Selma and Herman Seldin Professor of Medicine and director of the division of pulmonary and critical care medicine. “Some of us estimate that 5 percent to 10 percent of children and a similar percentage of adults have the disease. So there’s a great emphasis nationally on trying to solve the problem.”

The disease has another disturbing aspect: It takes its greatest toll in impoverished neighborhoods. A recent study by Mario Castro, MD, assistant professor of medicine, showed that in St. Louis areas with



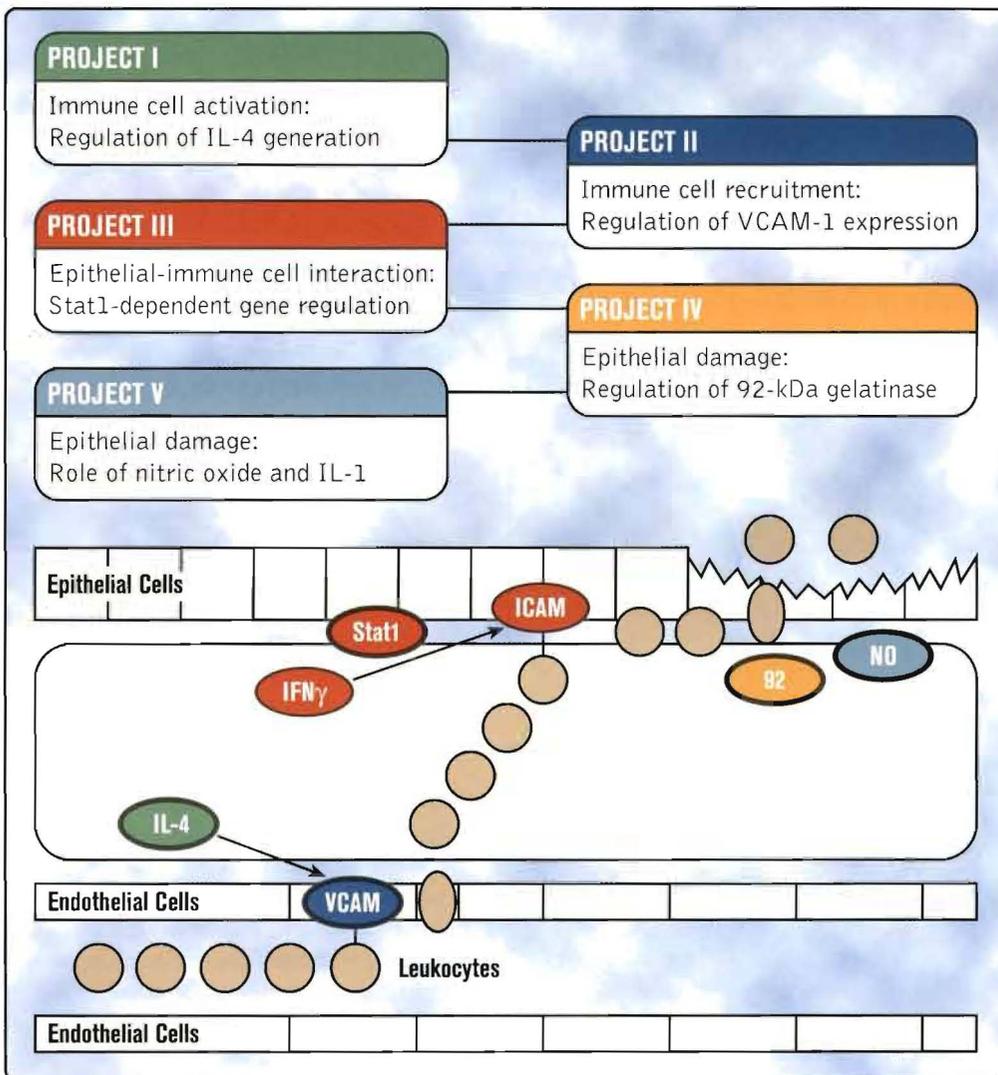
Mario Castro, MD

a median household income of less than \$20,000, the risk of hospitalization for asthma was 8.4 times higher among children and 4.5 higher among adults than it was in more affluent areas. In areas with a high percentage of African Americans, hospitalizations were five times greater than they were elsewhere.

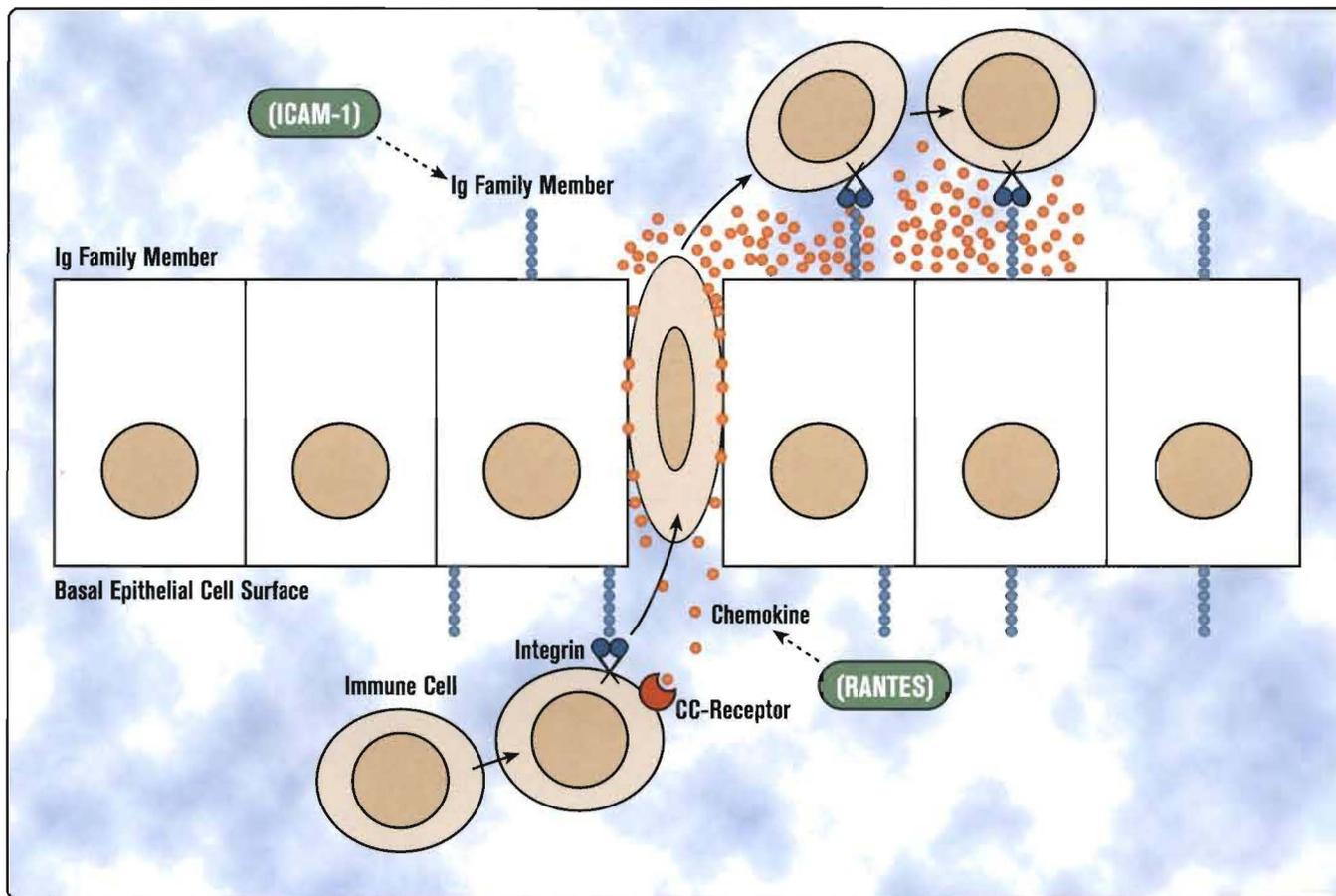
Ironically, this is a disease that does not have to be disabling. “We know how to treat asthma and we should be able to keep everyone out of the hospital or the emergency department — but that doesn’t happen. The reason is that people don’t take their medicines regularly or don’t change medication when they detect a warning sign,” says Robert C. Strunk, MD, professor of pediatrics.

Along with the clinical problems surrounding asthma, there are research issues as well. What exactly is the mechanism that precipitates an asthma attack? Is allergy the main trigger for asthma or are there others, such as viral infections, that may work in concert with allergy to cause the disease? And what makes the disease develop in some children while others escape it?

In cooperation with Barnes-Jewish and St. Louis Children’s hospitals, School of Medicine physicians are attacking the disease on all these fronts.



**SCOR Program in Cellular and Molecular Mechanisms of Airway Inflammation in Asthma.** The overall goals of the Washington University SCOR program are to understand how inflammatory cells infiltrate the pulmonary airway in asthma and how the resulting infiltrate leads to characteristic pathologic changes in airway tissue. The SCOR proposal consists of five projects, color coded above, that address five critical (and sequential) steps in the inflammatory response.



**Controls for Transepithelial Migration of Immune Cells:** The diagram depicts the critical molecular interactions that mediate initial immune cell adhesion to airway epithelial cells, subsequent transepithelial migration and final retention at the airway lumen. The initial step consists of immune cell binding to a cell adhesion molecule designated ICAM-1 on the basal epithelial cell surface. The second step consists of binding to a chemokine, designated RANTES, and movement along a chemical gradient for this chemokine. The third step allows for retention of immune cells in the airway lumen by renewed binding to ICAM-1 and paralysis by the high concentration of RANTES at the apical epithelial cell.

The Medical Center is one of the leading comprehensive asthma research centers in the United States. Under the direction of Holtzman, some 50 scientists are working on five related basic and clinical research projects as part of a \$9.5 million Specialized Center of Research (SCOR) grant, one of only six awarded nationwide.

On the health care delivery front, faculty members in pulmonary and allergy specialties are actively engaged in studies related to patient care and compliance, along with educational programs for primary care physicians. Through the Asthma Center in West St. Louis County, physicians work to treat difficult cases; others are developing novel community programs, particularly in north St. Louis city and East St. Louis IL, to reduce the social costs of this disease.

In a joint project developed by the School of Medicine and Barnes-Jewish, a new multidisciplinary Lung Center will open on the north campus next spring. There, patients with asthma will receive new insights into the diagnosis and treatment of their disease.

## Understanding The Disease

For years, researchers have pointed to allergy as the major culprit in asthma. But Holtzman and his SCOR grant colleagues have developed an alternative hypothesis, one that could change our understanding of the way in which airway inflammation develops — and possibly lead to new strategies for treating the disease.

“Those who support the allergy explanation for asthma contend that

even the response to viruses is actually an allergic-type response, but our evidence shows that this is not the case — that asthma patients may be influenced by viruses in a distinct and abnormal way,” says Holtzman.

First, researchers demonstrated that once airway epithelial cells — the host cells that line the airway — are infected by a virus, they activate specific regulatory pathways and corresponding genes that control the body’s immune response. During *in vivo* testing in mouse models of asthma, the team confirmed that the epithelial immune-response genes were activated by infection and that overexpression of these genes — in combination with allergy-driven gene expression — may lead to airway inflammation.

Then, in an unexpected development, the investigators discovered

that the same pattern of gene activation was present in patients with asthma, even without an apparent infection. They are now defining further evidence that viral remnants are left in asthmatic subjects, and these remnants no longer cause infection but still modify the immune response.

As researchers delve into how this gene activation occurs, they also are developing proteins that could be introduced into the epithelial cells at a controlled level to alter the immune response, shifting it to normal activity. The challenge, Holtzman says, is to preserve normal immunity that protects us from infectious diseases while correcting the abnormal response that causes asthma.

Holtzman also points out that the critical influence of respiratory viruses on the development of asthma likely takes place during early childhood. In an effort to further extend their work to this young patient group, Holtzman also was just awarded an NIH grant of \$1.8 million. This grant is aimed at studying the regulation of epithelial immune-response genes by the type of respiratory viruses that cause asthma in infants.

One of Holtzman's colleagues on the SCOR project is David D. Chaplin, MD, PhD, professor of medicine, and of genetics and molecular microbiology, and director of the division of allergy and immunology.

In his work, Chaplin focuses on the role of T lymphocytes — Th1 cells, which are activated in response to viral infection, and Th2 cells, which push the immune system toward an allergic response — in producing asthma. Scientists have long believed that asthma is dominantly a Th2-driven disease, and that if an asthmatic's immune response could be shifted to Th1 from Th2, the disease could be cured. But there is competing evidence that Th1 cells also help cause the disease.

"In the mouse model we developed, it is clear that the disease is caused by a cooperation between

Th1 and Th2 cells. Th2 cells are required to get the asthma reaction, but those cells alone have very little potential to cause the disease. When you have Th2 plus Th1 cells, you get a very potent inflammatory reaction," says Chaplin.

Once researchers fully understand how this cooperation works, they may one day be able to develop drug approaches to block the immune response — while preserving the cells that provide a person's normal defense against a host of infections.

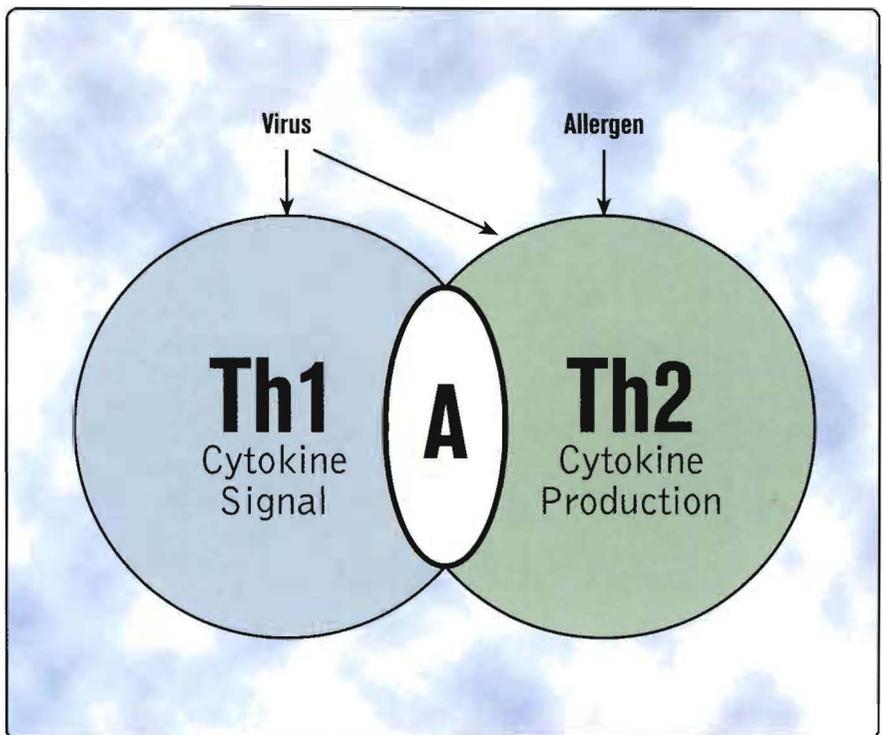
Taking the basic research a step forward is a newly funded clinical research project in which Medical Center pediatric and adult asthma specialists will work together on pediatric clinical research. In their studies, researchers will identify 300 infants hospitalized with respiratory syncytial virus (RSV) infection and will follow them for three years, checking them periodically with pulmonary testing, allergy skin testing and genetic analysis.

"We believe that if you have been exposed to RSV and the virus

has sensitized your body, and you also have an appropriate genetic background and are exposed to certain environmental triggers, then asthma will develop," says Castro, principal investigator of the study, which starts this fall with a four-year, \$1.4 million grant from the National Institutes of Health.

## Helping Patients Help Themselves

Physician-scientists at the university also have developed important strategies to improve current asthma treatment. Since 1990, the Medical Center has been one of only eight institutions nationwide to take part in the Childhood Asthma Management Program (CAMP), the largest childhood asthma study in history. The project, funded by a grant from the National Heart, Lung and Blood Institute, is aimed at learning how best to handle asthmatic children through their elementary and early teen years. Results from the study, which has enrolled more than 1,000



**Airway Immunity and Asthmatic Inflammation:** The diagram illustrates how an interaction between two distinct mechanisms — one based on allergen or virus-provoked production of T helper type 2 cytokines or Th2 and the other based on virus-dependent changes in pathways for T helper type 1 or Th1 cytokine signaling — leads to the development of asthma (designated as an "A").

children nationwide and 133 in St. Louis, will be available next year.

One of Strunk's favorite patients is a high school senior who used to have terrible asthma attacks. She didn't pay enough attention to managing her disease. Then it began to undermine her performance at track meets — and she was a state-level star in the 100-yard dash. So she started taking her medicine and keeping a diary of her symptoms, highlighting the problem days in yellow.

"Now she comes in with her diary, flips open the pages and has it all there in front of her. Since she started doing this, she hasn't been back in the hospital or missed a day of school. She finally caught on, and it has really helped her," says Strunk.

Patient cooperation is crucial to managing the disease, but sometimes there are obstacles. Two community asthma programs — one at Barnes-Jewish and a parallel effort, the three-year-old Asthma Intervention Model (AIM) at St. Louis Children's — help patients surmount the barriers to continuing

care through intensive follow-up by nurse coordinators.

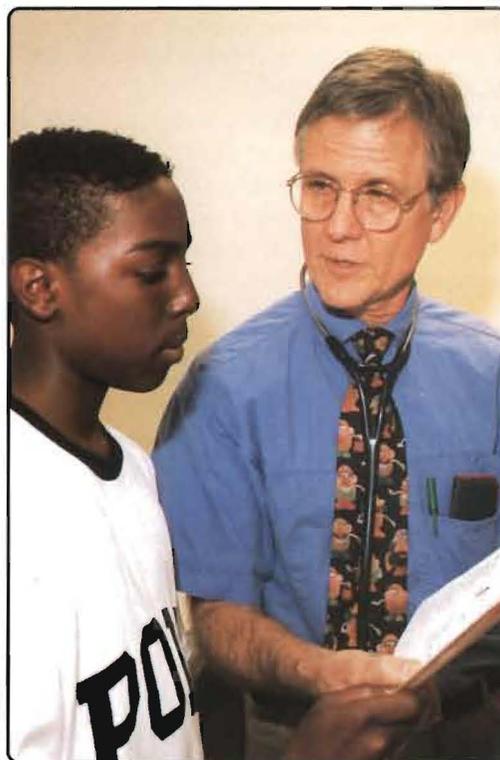
And a new study of acutely ill children at St. Louis Children's — the first emergency department intervention ever attempted in asthma — begins this fall. The study, funded by a \$2 million grant from the NIH, is also aimed at getting children back to their primary care physicians. A novel feature of the program is that patients will be paid \$15 to go back the first time, in the hope that overcoming the barriers once will help them sustain an ongoing effort.

Last year, a record number of patients — more than 1,000 — visited the Asthma Center in West St. Louis County. In many cases, their asthma was severe and complicated by sinus disease or allergy.

As part of the center's program, physicians take a full patient history, then administer pulmonary, sinus and allergy tests as well as a psychosocial evaluation. Asthma education and extensive follow-up by phone to monitor the patient's condition is stressed.

"It's remarkable the number of patients who come to us saying they have never gotten relief from their asthma, and how quickly we can turn that around with the comprehensive program we offer," says Daniel L. Hamilos, MD, associate professor of medicine and medical director of the Asthma Center since 1997.

Across town, in north St. Louis, researchers are working to educate residents through a program called the Neighborhood Asthma Coalition. In cooperation with Grace Hill Neighborhood Services, they have



Robert C. Strunk, MD, with asthma patient DeMontrel Jones, of Upland Park MO

**"It's remarkable the number of patients who come to us saying they have never gotten relief from their asthma, and how quickly we can turn that around with the comprehensive program we offer,"**

Daniel L. Hamilos, MD  
medical director of the Asthma Center

helped develop a program of neighborhood-based activities, including a parent-run camp for asthmatic children, to increase awareness of asthma. Their motto, says Edwin Fisher, Jr., PhD, professor of psychology, medicine and pediatrics and director of the division of health behavior research, is "With education, asthmatics can do anything."

Over the past two years, with funding from the National Institute of Environment Health Science, they also have trained neighborhood residents as CASS (Changing Asthma through Social Support) workers to provide support for children with asthma. Now, in the new NIH-funded "Coach" program, CASS workers will visit homes and telephone disadvantaged residents who are socially isolated.

"Our group clings to the so-called unrealistic attitude that we can do it all — cutting-edge basic and clinical research and rapid translation into state-of-the-art clinical care," says Holtzman. "And so far, the progress of the asthma program at Washington University indicates that we can." ●



# HEY

Health and Education for Youth

## A Haven For HIV-Positive Teens

by Diane Duke Williams

**E**ighteen-year-old Promise likes to draw, pen poems and talk on the phone. She's planning a senior-year road trip — from East Coast to West — with her best friend.

A college sophomore studying voice, Edward juggles 17 credit hours with a work-study job and paid singing gigs at area churches.



On the surface, Promise and Edward are normal teenagers, experiencing the peaks and valleys of adolescence, exploring who they are and what they want from life. But the teens are grappling with much more complicated issues: Both have HIV, the virus that causes AIDS.

"I think about the future," says Promise, diagnosed when she was 17. "I'm most scared about being alone. My mom will be there, but I'm scared that I'm not going to get the chance to get married and have kids."

"I try not to think about it," says Edward, who contracted HIV after having unprotected sex one time. "But it's not something you can completely ignore." Dating, he says, is a constant struggle. "If I go on a date and I like the person, I worry about how I'm going to tell them."

Approximately half of all HIV infections in the United States occur in people under 25, and one-fourth of all new infections are in youth under 21, according to the Centers for Disease Control and Prevention. A nationally known nonprofit youth advocacy organization, Health Initiatives for Youth, estimates that a youth is infected with HIV every 30 minutes.

In one respect, Edward and Promise are fortunate. They participate in the Health and Education for Youth (HEY) program at the School of Medicine.

In operation since July 1997, HEY is a haven for HIV-positive youth ages 13 to 21, providing medical care, case management, support groups and social activities. Adolescent patients seen through the Helena Hatch Special Care Center for Women (which provides care for HIV-positive pregnant women and their children) and the Pediatric HIV program at St. Louis Children's Hospital also are included. HEY

offers outreach and prevention services to identified at-risk youth in the St. Louis metropolitan area, and is part of Project ARK (AIDS/HIV Resources for Kids), a collaboration between the School of Medicine and St. Louis University School of Medicine.

The HEY program gives tremendous support to adolescents, says Linda M. Mundy, MD, assistant professor of medicine and medical director of the Helena Hatch Center. "HEY recognizes their age, vulnerabilities and distinction from being adults," says Mundy, who treats teens through the Helena Hatch Center. "This allows them to further explore what it's like to be adolescents and how they may approach HIV management as young adults."

The HEY program was launched to fill numerous needs in the St. Louis metropolitan area, says coordinator Jessica Forsyth. "There was no HIV-specific health care for youth," she says. "These kids needed care in a one-stop shopping environment so they'll keep coming back. It also is important to have doctors attuned to the needs of teens."

Providing more adolescent-specific services for HIV-positive youth, such as support groups, and coordinating HIV prevention efforts for adolescents also was critical, Forsyth says.

The HEY clinic fills the health-care void. Once a week, physicians care for teens in a School of Medicine building that simultaneously hosts numerous clinics. Although



Jessica Forsyth, HEY coordinator

this maintains anonymity, Forsyth would like to make the clinic more youth friendly. "I'd like to have an MTV video running and posters on the walls," she says.

Despite its somewhat sterile environment, the clinic makes visitors feel at home. At a recent weekly clinic, a few jean-clad young people read magazines, talked

and laughed. While one teen sought advice to fill out a job application from a fast food restaurant, another, more serious, sat quietly alone, occasionally participating in the lively conversation.

## Communicating Control

Forsyth says one of HEY's goals is to enhance physician communication with youths. At the clinic, doctors are asked to simplify and write down instructions. "Above all else, we want our doctors to encourage teens to take control of their medical situations. There's got to be a better dialogue between providers and young people if teens are going to get control of their disease, she says.

Gregory Storch, MD, professor of pediatrics, treats youth in the HEY program. He says adolescents present a special challenge because they are experimenting with life and often are rebellious. "It's totally different to care for an adolescent with HIV. They can be irrational and act in ways that are not health promoting," he says. "Many adolescents and young adults don't understand mortality. They think that bad things can't happen to them, and they act from that perspective."

The program currently serves about 22 youth who fall into one of three categories: those who have grown up with HIV — generally



Linda M. Mundy, MD, medical director of the Helena Hatch Special Care Center for Women

hemophiliacs, those who have been living with the disease for three or four years, and others recently diagnosed. Most of the teens contracted the disease through heterosexual sex, are African American and have grown up in low-income families. "They have not had success with school or with employment or with the medical system," says Forsyth.

In addition to providing medical treatment for the disease, HEY addresses other issues, including education, home life, drug abuse and vocational concerns. "We have kids who have all sorts of things stacked against them and at the same time are dealing with a serious illness. It can be overwhelming," says Storch.

Because of treatment success with protease inhibitors (a combination of AIDS drugs that prevents the virus from replicating), more youth with HIV now have to think about long- and short-term goals such as completing high school, Forsyth says. Nationally, about one-

third of adolescents with HIV drop out. HEY officials work with school systems and encourage students to go back to school and graduate.

Improving her grades was one of Promise's goals. Once an average student, she now is on the honor roll. "I don't know when I'm going to die," she says. "But at least I've done what I wanted to do." She also speaks at area school assemblies, reminding youth how to prevent contracting HIV.

HEY also offers life skills training, helps adolescents find jobs through local programs such as The

Women's Job Connection and assists with apartment hunting.

## Strength In Numbers

**A**t a support group meeting, the teens discuss their week, job hunting and other concerns while munching on pizza. The camaraderie is similar to that of a group of high school friends. One teen has brought the six-month-old baby of a friend, and a few of the youths take turns holding the little girl. After meetings, they often go to



Gregory Storch, MD, professor of pediatrics, and Kathleen McGann, MD, assistant professor of pediatrics, work with teens through the School of Medicine's HEY (Health and Education for Youth) program.

movies or other events.

"I've enjoyed the social support most," says Edward, who's been with the program for about six months. "It's really good because it's uplifting. You see other people go through the same things. It's not like the horror stories you see on TV."

Another HEY task is teaching youth with the disease about sexual responsibility because their infection can be transmitted through sexual relations and to unborn children in the womb. Teens are encouraged to tell their sexual partners that they

are infected with the virus.

"Legally and ethically, if an infected person has sexual relations with someone, the person with HIV needs to tell the partner they're HIV positive," says Forsyth.

Inevitably, some of those relationships will not survive, Storch says. The partner may choose not to continue the relationship. "But I think it's very important for that individual to have that option. You have to think about this from the standpoint of the uninfected person as well."

From a public health standpoint, it is paramount to get

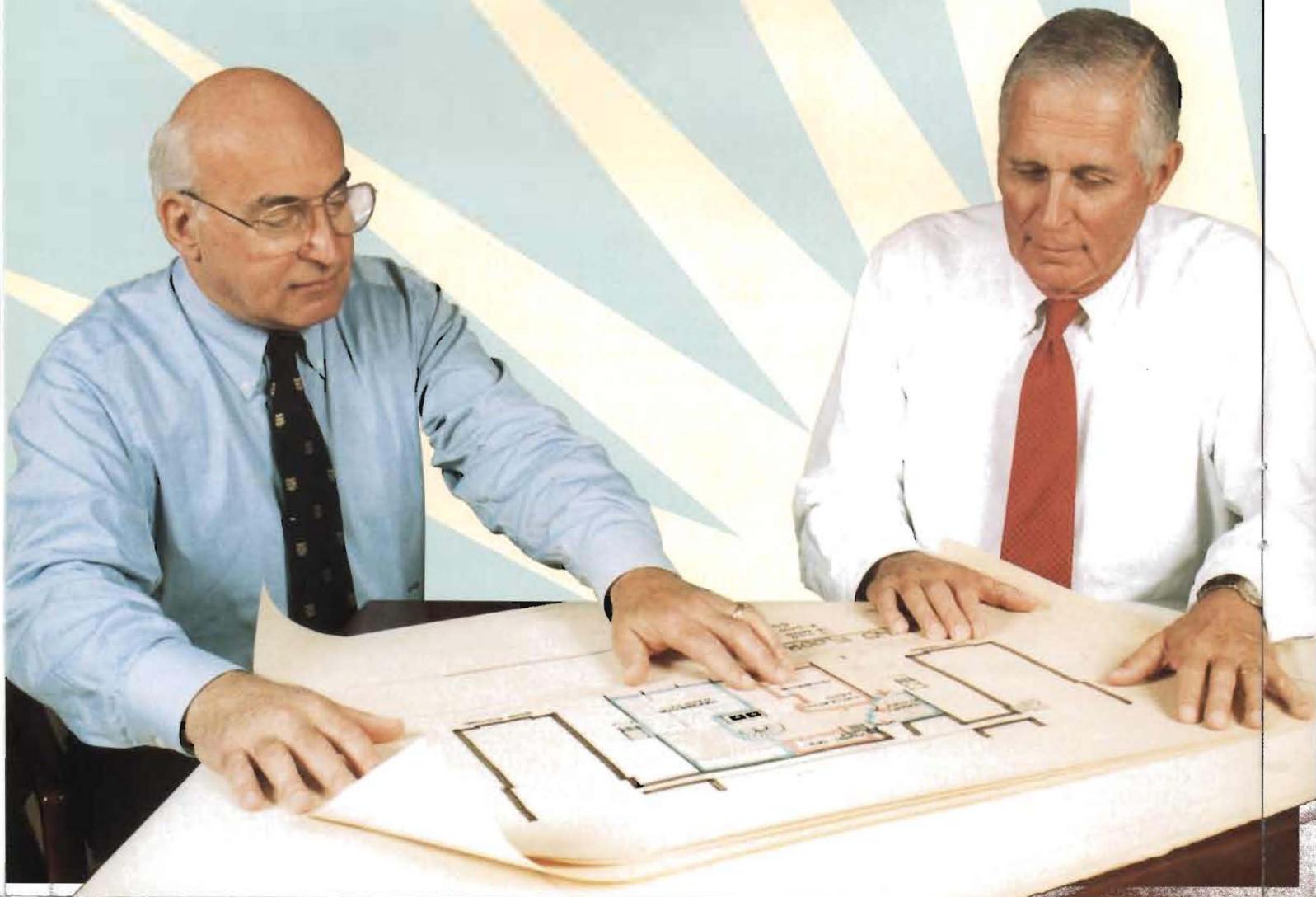
teenagers with HIV into care. Establishing a long-term relationship with them is an opportunity to guide them toward responsible sexual behavior and prevent the spread of the disease. And if someone with HIV is consistently treated with current therapies, the disease may be less contagious.

"The most important thing in treating adolescents is being able to ride through the good times and the bad times," says Storch. "We try to support them but also help them learn what is in their long-term interest and in the interest of maintaining their health."

Edward says the HEY program has been a positive experience for him. "HIV is like any other virus. Once you get it, you just live with it. If nothing else, the HEY program makes you understand that more," he says. ●

# Accelerating The Ascent Of *Excellence*

Campaign Promotes Support For  
School of Medicine's Areas Of Expertise



**I**n a twilit ballroom of St. Louis' America's Center, some 1,400 people gathered on Sept. 19 to kick off the largest capital campaign in the history of Washington University. The dinner and dancing event launched the "public phase" of the \$1 billion Campaign For Washington University: A Partnership For The 21st Century, which will continue through June 30, 2004. At this time, more than half — \$541 million — of the \$1 billion goal has been secured.

With red and green balloons dripping from the ceiling and Broadway showtunes being sung on stage, the festive evening highlighted a weekend of campus events for friends, faculty and supporters of the university.

This is the first capital campaign the university has undertaken in 11 years — the Alliance Campaign, which raised \$630 million for the university, concluded in 1987. Architects of this campaign say its goal is "to accelerate Washington University's ascent among the world's premier universities."

The campaign stems from a university-wide planning initiative launched in 1993, under the leadership of former Chancellor William H. Danforth, in which each school, library and student affairs office evaluated its programs, developed strategic plans and set goals and priorities for the future. The effort, titled Project 21, continued under the leadership of Chancellor Mark S. Wrighton and resulted in a set of plans for each entity which then were reviewed by the respective national councils and by the Board of Trustees.

At the School of Medicine, which will raise \$400 million of the total campaign financial sum, four major goals emerged that

will help ensure high-quality patient care, education and research well into the 21st century:

1) To develop new financial resources to enable the school to recruit and retain the best faculty — upon whom the school's mission depends.

2) To recruit the best medical and graduate students — by expanding scholarship and loan aid and educational program support.

3) To support existing and promote new multidisciplinary Centers of Excellence — which meld research, teaching and clinical missions devoted to enhancing the quality of health care well into the future.

4) To establish outstanding new facilities to assist in achieving the foregoing goals — a Teaching and Learning Center for medical and graduate students and new facilities for research and for the multidisciplinary centers.

As an outgrowth of Project 21, the campaign promotes support for areas of expertise in which the School of Medicine — consistently ranked among the top five medical schools in the country — can build worldwide reputations for excellence and continue to draw patients from around the country and the world who are in need of expert care.

Achieving that excellence is an ambitious undertaking, but one that is within reason, given the medical school's past successes in garnering support from alumni, friends, corporations and foundations.

"Attraction and retention of outstanding faculty require a supportive and nurturing environment, superior facilities and appropriate financial resources. Philanthropic support is an essential ingredient," says William A. Peck, MD, executive vice chancellor for medical affairs and dean of the School of Medicine. "Funds derived from a most remarkable and loyal group of alumni and friends of the institution have contributed substantially to the school's success in providing for the health and well-being of society.

"These funds represent investments in the most daring and innovative research that cannot be obtained from other sources, and in medical education which cannot be obtained from tuition," Peck continues. "Furthermore, we have been able to establish endowments for faculty and programs that will last in virtual perpetuity and to develop and retain the best faculty and the facilities to house them."

Peck says the campaign is a most important undertaking for the medical school — not only because of the opportunity it provides to enhance endowments and operating funds — but also because it provides a rationale for strategic planning; disciplines thinking about the institution's future; engages faculty, alumni and other supporters in the school's challenges, and creates new alliances and friendships.

## Continuing Leadership In Patient Care

**O**f particular importance is continued leadership in patient care, he says. Reflecting that are the new centers and institutes of excellence such as the Center for Arthritis and Related Diseases, Cancer Center, Center for Child Health, Human Genetics Institute, Heart Disease Institute, Center for Immunology, Center for Infectious Diseases and Neurosciences Institute. Peck says these interdisciplinary programs reflect new operational approaches to patient care, teaching and research that cross traditional organizational boundaries and stem from new clinical, educational and investigative endeavors.

More than 1.2 million Americans are diagnosed with cancer each year; by the year 2000 cancer will replace heart disease as the leading cause of death in the United States. The Cancer Center at Washington University Medical Center embodies patient care,

by Kleila Carlson



**Leadership Abounds:** William H. Webster, right, a 1949 alumnus of the law school, was master of ceremonies for the campaign kick off. Guest speakers, seated from left, are Chancellor Mark S. Wrighton, campaign chairs Sam Fox and John F. McDonnell, and William H. Danforth, chairman of the university's Board of Trustees.

research and teaching, and is being created in partnership with Barnes-Jewish, St. Louis Children's and Barnard Free Skin and Cancer hospitals, and BJC Health System.

Each year, 500,000 Americans suffer strokes and 40,000 suffer brain tumors. Alzheimer's disease alone afflicts 4 million Americans. Research entities such as the school's Neurosciences Institute will enhance the climate of collaboration and interdisciplinary investigation currently taking place.

"All are crucial to the future of the institution," Peck says of the campaign priorities. "These are but two examples of why such centers of excellence are vital components to the school's future. But to meet these goals requires additional resources."

Heightening the urgency to raise funds are the dramatic changes taking place at the School of Medicine. Not at any time in its modern history has the medical school braced for more radical change, says Peck.

"The growth of managed care is challenging the ability of the institution to cross-subsidize research and teaching from clinical revenue and to guarantee that academe is an exciting, fulfilling career," he says. "Consequently, we are restructuring and reorganizing the clinical operation.

"The research enterprise is changing to accommodate new paradigms fueled by the amazing expansion in technology and information. Educational changes are occurring as well, to better prepare students for clinical practice in a new health care environment.

"These important changes... will make philanthropy an all the more significant contributor to our future success. We do much with what we have, but we can do more, and what we can do is limited only by the support available."

Charting the course for the School of Medicine campaign is internationally renowned businessman Andrew Craig, retired chairman of the board of NationsBank Corp. Craig, of St. Louis, has an established relationship with Washington University: He is serving his second term on the University's

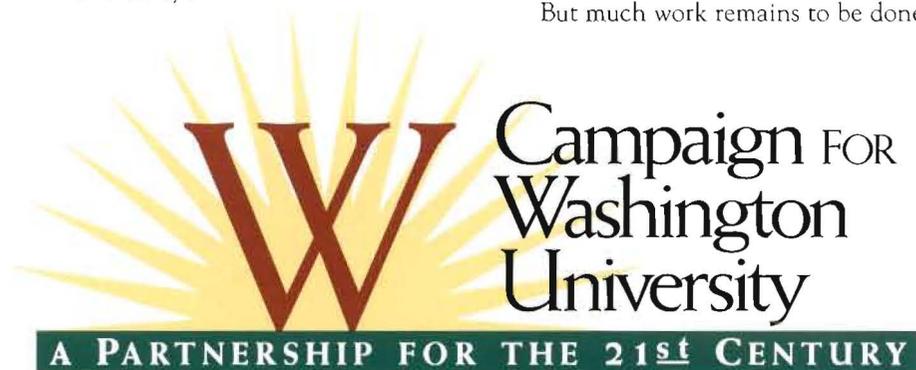
Board of Trustees and is a member of the School of Medicine and the John M. Olin School of Business National Councils. Craig says he became involved with the campaign for the School of Medicine because it is a superior institution.

"I've always been impressed with Washington University, and, in particular, the School of Medicine and the people involved with it," says Craig. "I feel it is an extremely worthwhile program to support, and I'm sure the drive will be successful because of the quality it represents. It does need substantial funds to support it, and I feel I can be of some assistance to see that this is accomplished."

As evidence of their personal commitment to the School of Medicine drive, Craig and his wife, Virginia, made a gift of \$500,000; their gift was matched by NationsBank Corp., for a combined contribution of \$1 million. It will establish the Andrew B. and Virginia C. Craig Faculty Fellowship and the Andrew B. and Virginia C. Craig Research Fund.

Craig says he is optimistic about the campaign outcome because the School of Medicine is perceived so positively nationally and in the St. Louis community — particularly among large corporations that have had contact with the university and the medical school.

"Smaller businesses may have less knowledge of the institution," he says, "but we will concentrate on getting the word more broadly communicated throughout the community. The quiet stage of the campaign has been quite successful — very well received — and therefore we expect to achieve our goal. But much work remains to be done."



## Lasting Partnerships

**P**artnering with Peck and Craig are many faculty and alumni who have enthusiastically agreed to contact individuals and appear at fund-raising events to talk about the medical school and/or their specific areas of research.

Samuel B. Guze, MD, Spencer T. Olin Professor of Psychiatry, and a 1945 graduate of the medical school, is one such volunteer. Guze, who is the former vice chancellor for medical affairs and head of the Department of Psychiatry, and his wife, Joy, made a \$1.5 million gift using his TIAA-CREF retirement funds to endow the Samuel B. Guze Professorship in Psychiatry. Guze, who is chairing the faculty/staff component of the campaign, also wrote letters to selected senior faculty members at the School of Medicine encouraging them to consider giving. Guze says he was especially pleased when he received a positive response from a former psychiatry resident, now practicing in California, who pledged to establish a professorship.

"Washington University has evolved into an outstanding institution, so if someone has been a student here or a faculty member, it is not difficult to offer persuasive arguments to helping the school," says Guze. "My sense of gratitude and obligation to the university is very high because I was educated and trained here. The university gave me a chance to show what I could do as a faculty member and as an administrator and offered me full potential to cultivate whatever my talents and strengths were. My wife was also educated at Washington University. I have felt for a long time that the opportunities that the university, particularly the medical school, provided me were marvelous."

Serving as vice chair for the former house staff division of the campaign is Phillip E. Korenblat, MD, professor of clinical medicine, who

*The School of Medicine has developed a number of campaign priorities it must meet. They are:*

### **(1) CREATE OR STRENGTHEN EXISTING MULTIDISCIPLINARY CENTERS**

to give researchers and clinicians the flexibility and the facilities necessary to work and teach collaboratively. Such work will be enabled and encouraged in the following centers:

- *Center for Arthritis and Related Diseases*
- *Cancer Center*
- *Center for Child Health*
- *Human Genetics Institute*
- *Heart Disease Institute*
- *Center for Immunology*
- *Center for Infectious Diseases*
- *Neurosciences Institute.*

### **(2) FIND NEW SOURCES OF SUPPORT FOR FIRST-RATE FACULTY.**

Endowed professorships symbolize enduring commitment and financial stability, and are key to recruiting and keeping distinguished faculty.

### **(3) PROVIDE A GREATER PORTION OF SCHOLARSHIP AND LOAN AID TO STUDENTS AND FELLOWS.**

Typically, medical students at private institutions leave school with \$100,000 in debt; those at state schools with \$70,000. While average debt at the School of Medicine is \$60,000, the school wants to make more funding available to qualified students.

### **(4) ESTABLISH A NEW CENTER FOR TEACHING AND LEARNING —**

a physical and cultural environment to support a curriculum that reflects the new realities. This would include more small group, case-study and seminar formats which require flexible, reconfigurable space; 24-hour access to information technologies, and space that facilitates the training of more generalist, primary care physicians skilled at practice in a variety of ambulatory settings.

shares Guze's sentiments for the university. Korenblat completed an internship and residency at Washington University in 1965. He then left St. Louis to undertake allergy and immunology training at the Scripps Clinic and Research Foundation. By returning to the medical school early in his career, he says he was able to work with some of the giants of American medicine. Korenblat clearly remembers calling on Carl Moore, MD,

former chief of medicine, and Charles Parker, MD, a world-renowned immunologist who was chief of allergy and immunology.

"My first two stops were to visit with Dr. Moore and Dr. Parker, and I requested as many teaching assignments as they had available in the Department of Medicine," Korenblat recalls. "They both opened up opportunities often not available to non-full-time faculty members, which has allowed me to

this day to have an identity with this most prestigious institution. By being able to learn and teach during my entire professional career, I have been a better physician. I feel any success that I have enjoyed in medicine is a result of the opportunities provided by my connection with Washington University.”

Ronald G. Evens, MD, Elizabeth Mallinckrodt Professor and Chair of the Department of Radiology, likens Washington University to some of the world's great universities.

“Clearly, St. Louis would be a smaller and less innovative community without Washington University,” says Evens, a 1964 medical school graduate who is a vice chair for the faculty/staff campaign. “It is not only a major educational and developmental resource for the metropolitan area, but it attracts and recruits the highest level of faculty and students for a variety of academic programs.

“We have become a major resource for the country and the world. Think of the advantages of being considered as an academic, medical and university resource at the level of the Sorbonne, Harvard or Berkeley. We may not be at that level yet, but Washington University

## SCHOOL OF MEDICINE CAMPAIGN GOAL

### IN MILLIONS

Endowment.....	\$215
Academic, Research, and Clinical Programs.....	\$135
Facilities .....	\$40
Annual Fund .....	\$10
<b>CAMPAIGN GOAL.....</b>	<b>\$400</b>

is our opportunity to place St. Louis on the academic map.”

Emily L. Smith, MD, and Penelope G. Shackelford, MD, both from the School of Medicine Class of '68, also say they feel a sense of gratitude toward the medical school. As one way of 'giving back,' Smith, assistant professor of radiology, and Shackelford, professor of pediatrics and associate professor of molecular microbiology, have engaged themselves with the Washington University Medical Center Alumni Association (WUMCAA), serving in various capacities. Shackelford, who is a vice chair of the faculty-staff campaign, was WUMCAA president in 1992-'93, and Smith, who is

chair of the School of Medicine's Annual Fund, became a member of the WUMCAA executive council in 1995 when she assumed leadership of the annual fund.

“I am deeply grateful for all the university has done for me...it seems only logical that I should now be involved with the new campaign,” says Smith, who has served on the medical school Eliot Society Membership Committee and Patron's Committee. “I am impressed by the dedication of alumni and proud of those who have given so much in appreciation of their education here.

“My own Class of 1968 has responded overwhelmingly to establish a new scholarship in its name. This capital campaign will continue the university's good work into the next century.”

Shackelford says excellent physicians — such as those who train or teach at the School of Medicine — are a community's and a nation's treasures.

“Washington University does an outstanding job of creating a multi-faceted environment to provide excellent health care and move the frontiers of medicine,” says Shackelford, director of the new division of pediatric ambulatory medicine. “It is from here that cures for cancer, advances in the diagnosis and treatment of genetic diseases, new vaccines, improved antimicrobial agents and the pediatrician for your grandchildren will come.” ●



**A Celebration To Remember:** Some 1,400 friends, faculty and supporters of the university gathered for the Campaign Kickoff Gala at the America's Center Ballroom downtown. Among the attendees were, from left, Timothy J. Eberlein, MD, Bixby Professor and chair of the Department of Surgery; William H. Danforth, MD, chairman of the Washington University Board of Trustees; Kimberly Eberlein; Fred Hermann Jr., chairman of the cancer center advisory board, and his wife, Sally.

# growing Kidneys

Researchers  
Find Novel  
Way To  
Reproduce  
Organs That  
One Day May  
Be Suitable  
For  
Transplant



BY BARBRA RODRIGUEZ

A train trip in England shifted the direction of Marc R. Hammerman's research and suggested the possibility of a new treatment for patients with failing kidneys.

In March 1996, Hammerman, MD, Chromalloy Professor of Renal Diseases and director of the renal division, was traveling with his wife after lecturing about his research on growth factors that are important in regulating kidney development. After mulling over his words, art teacher Nancy Hammerman posed a simple question: Why couldn't doctors transplant developing kidneys? Hammerman was decidedly skeptical. "Only a nonscientist would come up with such an off-the-wall suggestion," he says. "But, then I reconsidered and said 'Let's give it a try.'"

Some 40,000 Americans await kidney transplants on the national list of the United Network for Organ Sharing, and about four die each day. Their lives revolve around time-consuming dialysis treatments while they bank on the hope of finding a kidney donor. But only 8,736 kidneys — about one-fourth of the number needed — became available in 1997.

"With so many people waiting, it would be wonderful if there could be another way to provide kidneys," says Lori Schutte, vice president of donor development at Mid-America Transplant Services in St. Louis.

After Hammerman returned home, he and research instructor Sharon Rogers began to determine whether an embryonic rat kidney, called a metanephros, could develop inside an adult rat. Their findings, published recently in *Kidney International*, suggest that patients one day may opt to become human incubators for animal kidneys. Once the organ reached an appropriate size, it could be attached to the bladder to take over the function of the failing kidneys. The immature animal kidney would gain human blood vessels while growing inside a patient.

This approach might overcome major roadblocks to transplanting animal organs, which normally would be rejected by the recipient's immune system in a similar manner to a transplanted human kidney. "Our experiments suggest there is something special about the developing kidney that renders it less immunogenic than a developed kidney," Hammerman says.

## In The Beginning

**H**ammerman and Rogers began their work with a variation of earlier experiments by others. They placed a pencil-tip sized metanephros under the tough, elastic membrane that covers the adult rat kidney. At the same time, they removed one of the rat's own kidneys to encourage the embryonic tissue to grow.

Under the dissecting microscope, metanephroi from 15-day-old rat embryos resemble a translucent cluster of grapes on a stalk and their internal structures are undeveloped. Six weeks later, the organs had gained the architectural hallmarks of an adult kidney — albeit a miniature one. They contained some

nephrons that snake through a kidney and carry out its main functions of cleansing blood and maintaining chemical balances. A larger tube called a ureter had grown out of one side where it normally would carry waste products from the nephrons to the urinary bladder.

Unfortunately, the kidneys grew only sparsely, possibly due to tight quarters underneath the kidney capsule. But Hammerman and Rogers had better luck when they repeated the experiment at a new site: they placed the dots of tissue in a pocket of fat that runs alongside the rats' omental membrane, which lines the abdominal cavity and attaches to organs within it.

When the researchers examined the implanted animals six weeks later, they saw that blood vessels had grown in from the membrane to nourish the metanephroi, creating a chimeric organ with circulatory support from its new owner. The chimeras also had grown to about one-third the size of an adult kidney and had the potential for additional development.

The ureters tucked into the side of the chimeras also were nearing adult size and underwent waves of

contractions, like their mature counterparts. And the kidneys occasionally were distended with fluid, suggesting that they were filtering the host's blood but not releasing waste products through the sealed-off tips of the ureters.

"They appeared to be functioning kidneys at that point, but they just weren't able

to release urine," Rogers says.

To test function, the researchers teased the chimeric kidneys from their membranous cocoons, opened up the tips of the ureters and stitched them to the ureters left behind when the host rat's kidney was removed. Four weeks later, they removed the remaining adult kidney and injected a sugar called inulin into the bloodstream. The sugar serves as a gold standard for measuring how much blood a kidney can filter in a given time. Normally, all of the inulin passes through the kidneys and is dumped into the urine.

The chimeric kidney had less than 1 percent of normal kidney function, the test showed. By comparison,

a dialysis machine augments kidney function by roughly 10 percent.

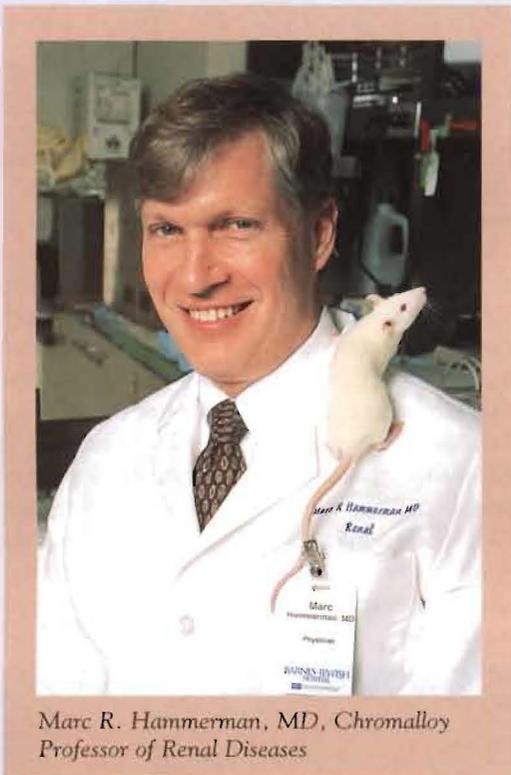
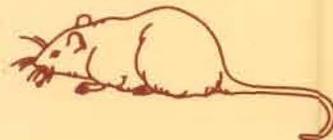
Hammerman and Rogers have since edged past the 1 percent mark by using a cocktail of growth factors that stimulates kidney growth and function. And they eventually hope to surpass the dialysis benchmark as well. "Theoretically, if you could get 15 percent of normal renal function, that would be enough to permit a rat — and maybe a human — to survive," Hammerman says.

## Against All Odds

**A**t the School of Medicine's George M. O'Brien Renal and Urological Diseases Research Center, Hammerman and Rogers have spent nearly a decade studying normal kidney development in search of new treatments for renal disease. For example, Rogers has determined how much growth factor is produced by isolated, embryonic rat metanephroi. And she has tested the influence of other growth factors by spiking culture media containing metanephroi. Hammerman, in collaboration with Steven B. Miller, MD, associate professor of medicine, also has participated in clinical studies that show that insulin-like growth factor I holds promise for improving kidney growth and function in people with chronic kidney disease.

The researchers have used various growth factors to enhance metanephroi development and to increase their

A) Cross-section of metanephroi from a 15-day old rat embryo; B) Higher magnitude cross-section of the outer cortex region of metanephroi six weeks after it was placed into the abdominal cavity of an adult rat. The components that make up a nephron, the glomerulus (a), and distal and proximal tubule (b and c), are labeled.



Marc R. Hammerman, MD, Chromalloy Professor of Renal Diseases

function. "It's like playing the lottery to figure out the best combination," Rogers says. "But the fascinating part is that just about every growth factor we've tried has resulted in some kind of improvement."

Paul E. Lacy, MD, emeritus professor of pathology, is impressed by the team's accomplishments. "I was amazed that you can get this little developing kidney to grow large enough in the peritoneal cavity that it can be attached to a ureter and act like a kidney," he says, noting that further studies will determine the clinical usefulness of the findings.

Why the method works at all remains to be determined. The choice of the omental membrane as the initial home for the metanephroi may partly be responsible because it is thought to release growth factors of its own. The omentum also provides a rich source of blood vessels that can grow into the developing kidneys.

The origin of these blood vessels in turn may shield the foreign kidneys from rejection in adult rats. Just as a tourist's first glimpse of a city often comes from its main thoroughfares, a host's circulating T lymphocytes make first contact with endothelial cells lining the blood vessels of an organ. If surface antigens on these endothelial cells

betray their foreign origin, the host's protective T lymphocytes may destroy the organ. This may be why adult kidneys are rejected within a week of transplantation into adult rats.

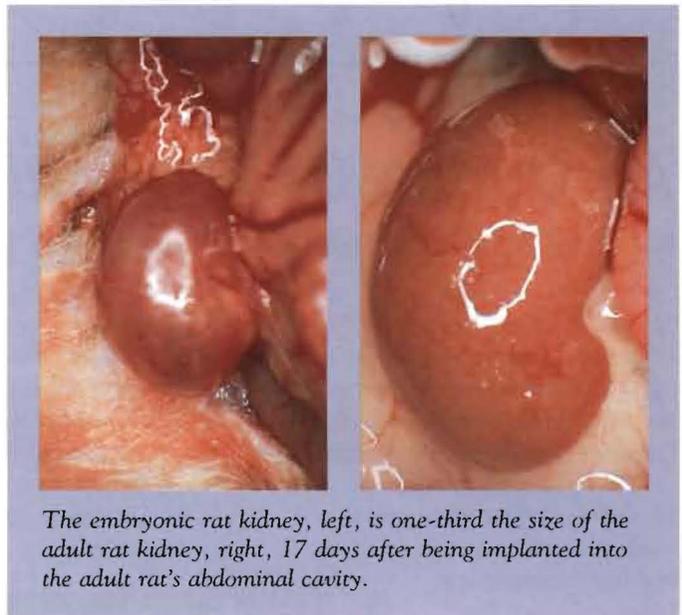
The presence of host blood vessels in the metanephroi may short-circuit the rejection response, allowing the implants to survive for at least six months in the team's experiments. "They actually grow and develop into kidneys without the need for immunosuppression," Hammerman says.

The early developmental stage of the implanted metanephroi also may give them an edge. Lacy, who pioneered the implantation of pancreatic islet cells into diabetic patients, helped develop the theory that certain immune cells transplanted along with the donor kidney play the most important role in transplant rejection. The immune cells secrete small proteins that may

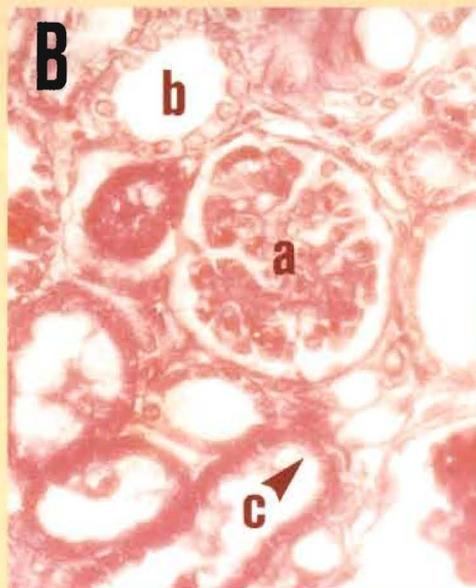
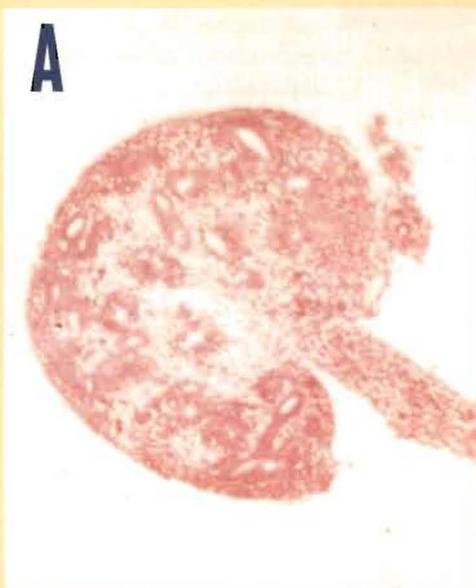
incite host T lymphocytes to attack a transplant recognized as foreign. Embryonic metanephroi may be too young to carry the instigating cells as cargo, however. "Dr. Hammerman appears to have found the particular time in development for getting the developing kidney transplanted," Lacy says.

Because rat kidneys are too small for humans, the researchers hope their work will be applicable to pig kidneys, which are similar in size and functional ability to those of humans. Although they normally fire up a swift rejection response in humans, Hammerman's work suggests that rejection might be avoided by using developing pig kidneys that would acquire human blood vessels.

Although the early experimental results look promising, Hammerman says that concerns about spreading animal viruses to people need to be addressed before embryonic pig kidneys could become a viable transplant option. "This work is only a first step," he says. "We're a long way from being able to use this technology in humans. However, I think we have made a fundamental discovery." ●



The embryonic rat kidney, left, is one-third the size of the adult rat kidney, right, 17 days after being implanted into the adult rat's abdominal cavity.



# An Ounce Of Prevention —

## Medical Students Take **SEX** Education To The Middle School Classroom

by Holly Edmiston

**A**N old advertising saw says that if you want consumers to read your copy, just include the word "sex" in big, red letters.

If you've read this far, you know that maxim still works. Unfortunately, language about sex and the corresponding visual images of our popular culture do much to titillate and little to educate. Nowhere are these messages felt more strongly than in the impressionable young.

But students at the School of Medicine are working to demystify sex in the minds of some St. Louis area middle school students with a sex education course designed to curb teenage pregnancy and sexually transmitted disease. In partnership with the Ferguson-Florissant School District, medical students present the course annually to teenage students at Ferguson Middle School.

School of Medicine officials involved with the Reproductive Health Education Program (RHEP) say it encourages teenagers to think about the issues surrounding sex before they are actually confronted with them.

According to Gretchen Champion, third-year medical student and RHEP coordinator, the program is primarily about abstinence education. Course materials and instructors repeatedly stress that abstinence is the only surefire

method to avoid pregnancy and sexually transmitted disease.

"There is definitely an emphasis on abstinence," says Champion, "but there is also a real effort to educate the students and not withhold information."

middle school students and teachers, parents and school board members. Originally designed for eighth grade students, it was moved to the seventh grade curriculum last year. Presenting the information one year earlier will allow coordinators to develop a follow-up course for eighth graders.

Sue Linke, a physical education teacher who team teaches with the medical students, says there was no health education course offered to the middle school grades at Ferguson prior to the Washington University program. She says collaborative teaching is effective in instructing students, and adds that their awareness of health issues related to sex is greatly increased.

"I thoroughly enjoy teaching the course," says Linke. "It has given me a closer feeling with my students — they realize that I am a source they can turn to and not just the teacher."

According to Cole, North St. Louis County has the greatest number of middle school pregnancies in the county. Eighth grade pregnancies at Ferguson Middle School have dropped among girls who have taken the class, he says.

The program's success has brought it an unusual honor: This year the RHEP will become an official offering of the medical school



From l-r: Ferguson Middle School principal Tom Boulch, second-year student Paula Gerber, Ferguson health education teacher Sue Linke, second-year student Kari Braun, and third-year medical students Paul Staveteig and Gretchen Champion. RHEP coordinators not pictured: second-year students Jason Kolb, Tessa Madden and Shannon Tierney; third-year student Jennifer Dunn.

The program curriculum was written by medical student coordinators with input from F. Sessions Cole, MD, professor of pediatrics. Following a successful pilot project in the spring of 1993, the course was offered to 450 Ferguson Middle School eighth graders during the 1993-94 school year.

From its inception, the program has been enthusiastically received by

curriculum. May 1998 graduates Jennifer and Derek Hausladen, now residents at Yale-New Haven, spent much of their fourth year highlighting the program's academic content and developing an evaluation method. As a result of their efforts, the course was accredited as a "selective" offered to first-year medical students.

"Now students will get academic credit for doing this important health project," says Cole. "I think it's a step forward for the medical school to recognize the academic importance of this kind of experience."

"Many medical schools actually have a large administrative infrastructure to encourage students to perform community service — here students do it on their own because they want to have a positive impact on the area in which they live and work."

The teaching experience that medical students gain through the course is extremely valuable, says Cole. "The generic skills of teaching an adolescent about health education are the same skills that medical students will use as doctors when they interact with patients."

Medical students kick off the first week of each new RHEP session with frank discussion about male and female anatomy and physiology. Jumping right into the subject of puberty and using the scientific terms for the body is a deliberate attempt to make students comfortable with hearing and talking about the changes their bodies are going through.

Student response has been positive. While many teenagers are embarrassed by frank discussion of sex education issues, most are surprisingly honest with their questions and

opinions, says Champion, who taught three classes last year.

The course is taught once daily and runs for three consecutive weeks. Classes are split by gender, and activities are geared toward either males or females to emphasize the role each plays in making informed decisions about sex.

Medical students teach on Mondays and Fridays, performing skits and leading discussion. The

**"We emphasize that the future is out there and that the students can't just think about immediate peer pressure or pleasure."**

**Gretchen Champion,**  
*third-year medical student and  
RHEP coordinator*

school's health education teachers handle more formal instruction on the days in between, using course materials compiled by the medical students.

The second week of the course focuses on sexually transmitted diseases, or STDs. "There is a sense of fear when we talk about STDs," says Champion. "Many students take it very seriously and want to protect themselves." The program emphasizes the difference between simply preventing pregnancy and taking precautions against contracting an STD.

The third week of the course examines personal decision-making skills. Students work through a number of exercises designed to make them think about the long-term consequences of their actions. Teenage mothers are invited to the classroom to speak about what it is like to bear the responsibility of raising a child.

The decision-making component is what makes the School of Medicine program different from other sex education courses, says Champion. "We tell students, 'You have the power to decide what you want for your life. You can be whatever you want to be.' And then we explain how having a child or contracting an STD can prevent them from meeting their goals."

"We emphasize that the future is out there and that the students can't just think about immediate peer pressure or pleasure — that there's also something else they should be striving for and working toward," she says.

"The role we play is different than that of the teachers," she continues. "We're not exactly the students' peers, but we're not as far removed from them because we are still students ourselves."

The program's success has prompted the Ferguson-Florissant School District to request possible expansion into two additional middle schools: Berkeley and Cross Keys. To do that, the program will need more medical student volunteers.

The rewards to participating medical students are obvious. Says Champion: "A frustration in medicine is that often by the time you see patients, they have already made decisions that have been detrimental to their health. This program is about prevention."

"Maybe we won't save all of these teenagers from the terror of an STD or an unplanned pregnancy, but we are probably going to cause a few of them to question the decisions they have made or to make different decisions. I think that's worthwhile." ●

## The Honorable Continuum

by Ruth Bebermeyer

**W**ITH this issue we begin "The Honorable Continuum," a series of profiles highlighting the accomplishments of some who represent the many who embody the unbroken Washington University School of Medicine tradition of excellence. We will span ages and categories that make up the continuum, from emeriti professors to current students, from medical graduates to current and former house staff and fellows.

### A Creative Thinker

"Extremely creative" is how a classmate describes Sydney E. Salmon, MD '62, who is fondly remembered for the cartoons he drew during medical school. For the past 26 years, Salmon has been at the University of Arizona College of Medicine in Tucson creating and



Sydney E. Salmon, MD '62

serving as founding director of the Arizona Cancer Center. In recognition of his extraordinary leadership, a new addition to the center facilities was named The Sydney E. Salmon MD Building last January. The center is one of 31 that bears the National Cancer Institute's coveted designation as a comprehensive cancer center.

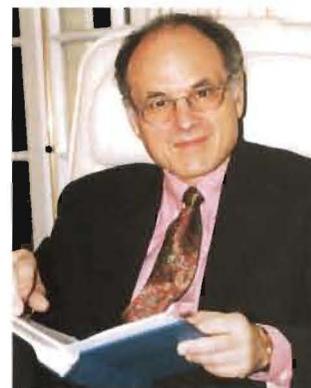
Now Regents Professor of Medicine, Salmon keeps one foot at the bedside and the other in the laboratory. He has published nearly 400 articles in major professional journals and has edited a series of books, *Adjuvant Therapy of Cancer*. He has been president of the American Society of Clinical Oncology and of the Association of American Cancer Institutes and served for five years on the National Cancer Advisory Board. He has accomplished major advances in the assessment and treatment of multiple myeloma, a cancer of the bone marrow. An assay which he developed allows scientists to clone human tumor cells and test the effectiveness of various drugs against them in the laboratory, thereby determining the best treatment for individual patients. Most recently, Salmon has been recognized as co-inventor of a technique that can screen thousands of chemical peptides in a day for their cancer-fighting properties, speeding up enormously the search for effective cancer treatments.

The urgency of that search is underscored by Salmon's own battle with pancreatic cancer, diagnosed last December. The tumor, which had not spread, was surgically removed, and Salmon returned to work within several weeks.

### A World Authority

Recognized as one of the world's leading authorities in neuro-ophthalmology, Ronald M. Burde, MD, HS '65-'69, is professor and chairman of the Department of Ophthalmology at Albert Einstein College of Medicine, Bronx, NY, a position he has held since 1988. He also is a professor of neurology and

neurological surgery, and has been elected to honor societies in ophthalmology, neurology and neurosurgery.



Ronald M. Burde, MD, HS

Burde received his medical degree from Jefferson Medical College in Philadelphia. Following his residency and fellowship at Washington University, he remained as a faculty member for 18 years prior to moving to his current position. Reflecting on his training, he calls Bernard Becker, MD, professor emeritus, his intellectual father, and Robert Drews, MD, clinical professor, and the late Ed Alvis, MD, his surgical mentors.

Burde's publications include several hundred papers and nine books. Currently editor-in-chief of the *Journal of Neuro-Ophthalmology*, he has served on many editorial boards and professional committees, including the Committee on Medical Ethics of the New York State Bar Association, and has chaired the American Board of Ophthalmology and the Association of University Professors of Ophthalmology.

His honors include election to the New York Academy of Medicine. Recently he shared the

# ALUMNI & DEVELOPMENT REPORT

annual award of the Manhattan League of Helen Keller Services for the Blind.

Burde is active in Jewish organizations and the Lions Club. He and his wife, Sharon, and their four children are outdoor enthusiasts who enjoy skiing and travel. At home in Manhattan, the Burdes attend the theater, museums and the Metropolitan Opera.

Convinced that the challenges of 21st century medicine require the blending of science and humanism, Burde says, "If I have made a lasting contribution, it will be through those doctors of medicine who arrived imbued as scientists and who left as physicians."

## A Problem-Solver

As a first-year resident in orthopaedic surgery at the School of Medicine, Angela K. Freehill, MD '98, says she hopes to "provide solutions to specific problems and help my patients



Angela K. Freehill, MD '98

in a profound and possibly life-changing way." A *magna cum laude* graduate in psychology and government at Georgetown University in 1991, she took premedical courses while working as an electrodiagnostic technologist in the neuro-ophthalmology laboratory at the Georgetown University Hospital and entered Washington University School of Medicine in 1994.

Freehill, who plans a career in academic medicine, was a member

of the varsity crew at Georgetown and attributes her interest in orthopaedics to early morning rowing experiences on the Potomac, where she "felt the power, the coordination, and the finesse of the awesome machines we call our bodies." A summer research project mentored by Susan Mackinnon, MD, chief of the division of plastic and reconstructive surgery here, exposed her to the operating room and confirmed her desire to be a researcher as well as a surgeon. Her rotations in orthopaedics fed her hunger to know more about the miracle of the human body.

Along the way, Freehill accumulated certification as an Emergency Medical Technician and participated in community service projects, authored a handbook and facilitated a course elective on domestic violence, worked as a labor coach with the perinatal project, taught in the reproductive health education program, and earned the School of Medicine Academic Women's Network Student Leadership Award. In 1997, she received the Jessie L. Ternberg Award, presented each year to the woman "who best exemplifies Dr. Ternberg's indomitable spirit of determination, perseverance and dedication to her patients." Freehill continues to demonstrate that spirit.

## A Student Of Art & Science

Maria C. Dans, president of the School of Medicine's Class of 1999, traveled a circuitous route to study medicine. A native of Cockeysville MD, she earned an undergraduate degree in East Asian Studies from Princeton. A scholarship then enabled her to study Japanese language and culture for a year at Kumamoto University, following which she spent two years as an apprentice to one of Japan's foremost Noh mask woodcarvers. Noh is a classic drama in which the action and costuming are highly stylized —

masks worn by the actors must be perfectly carved and lacquered, sometimes with 60 coats of paint, to enable the actor to take on the character embodied in the mask. During her apprenticeship, Dans also worked as an interpreter and an English teacher at the Red Cross Hospital, teaching medical professionals who were headed for Malaysia and Cambodia to assist with Red Cross relief efforts there.

Despite her love of art, Dans wanted to use her other abilities. Encouraged by her parents (her father is an internist who designed



Maria C. Dans, WUMS IV

medical ethics courses at Johns Hopkins), she enrolled in a post-baccalaureate, pre-medical program at Goucher College and became a certified Emergency Medical Technician with the Baltimore County firefighters. While she applied to medical schools, she worked as a teaching assistant at Goucher. Her positive interview experience at Washington University drew her here; the offer of a scholarship (she is the Robert C. Packman Distinguished Alumni Scholar) clinched her decision. Of medicine, Dans says she most enjoys the intellectual and human interaction challenges, the hands-on work with patients and the prospect of being a lifelong learner. At this time, she is leaning toward specializing in emergency medicine or radiology. ●

## School Of Medicine Banks On Andrew Craig's Wealth Of Civic Leadership

by Candace O'Connor

**A**NDREW Craig, who retired last April as chairman of the board of NationsBank Corp., has had more than 40 years of banking experience. A well-known volunteer for community organizations — and winner of the 1995 St. Louis Man of the Year award for his many achievements — he also has a wealth of civic leadership experience, especially on behalf of Washington University and the School of Medicine.

Financial acumen and community leadership: This combination makes Craig the ideal choice to chair the \$400 million School of Medicine fund-raising campaign, which began in September and will run until June 30, 2004. The school is lucky to have him; he could be filling his retirement with his favorite leisure-time activities. But he says that he is the one who feels privileged by having the chance to serve such a worthwhile cause.

"I am extremely impressed with the quality of the School of Medicine and of its leadership, faculty and staff," says Craig, who also was president, CEO and director of Boatmen's Bancshares, Inc., from 1988 to 1996. "However, I am also aware that when you are such an outstanding institution, you have an obligation not to rest on your laurels but to build upon your accomplishments."

With such an important product, he says, he and his team of volunteers — the vice chairs and committee members who will work with him on the campaign — will not find it hard to approach potential

donors. They also will have the dedicated help of the medical development staff and School of Medicine administrators, especially William A. Peck, MD, executive

utor myself," he says. "To be any kind of leader, I must be up front in my own personal commitment to the School of Medicine."

Craig, who received his undergraduate education at Cornell University and at the University of Buffalo, has a history of interest in medicine and education. While he was president of the Manufacturers & Traders Trust Co., in Buffalo, for example, he served as chairman of the board of Buffalo General Hospital — at a time when another hospital was acquired, a major fund drive was mounted and a new building program launched.

During his 13 years in St. Louis, he has continued to pursue the same interests, as trustee of Barnes-Jewish Hospital and director of BJC Health System. He is in his second term as trustee of Washington University, and he served on the search committee that selected Mark Wrighton in 1995 as the new chancellor. Until his appointment as campaign chair, he also was co-chair of the Barnes-Jewish Foundation.

To help the School of Medicine reach its target, he will travel out of town to visit potential donors and knock on the doors of local businesses. From his past experience in United Way campaigns, he firmly believes that St. Louis is "a very generous town" in which people give more per capita than they do in many larger cities. He fully expects to meet the goal — and still have time for other civic obligations, his hobbies and his family.

"Whatever I can do, I'm pleased to do it," he says. "I feel honored to be working with the University." ●



Andrew Craig is chairing the School of Medicine fund-raising campaign, which kicked off in September.

vice chancellor for medical affairs and dean.

But Craig plans to devote even more than time to the campaign — he has also become a major donor. He and his wife, Virginia, have generously given \$500,000 matched by \$500,000 in their honor from NationsBank Corp. to the fund-raising effort.

"I can't ask other people for money if I have not been a contrib-

## Tucker To Lead WUMCAA As President

by Holly Edmiston

**D**OLORES Reynolds Tucker, MD '74, assumed leadership of the Washington University Medical Center Alumni Association (WUMCAA) on July 1, 1998, becoming the third woman in the association's history to serve as its president.

She follows former female presidents Mary L. Parker, MD '53 (1977-'78) and Penelope G. Shackelford, MD '68 (1992-'93). Tucker, a dermatologist, has been in private practice in St. Louis for 19 years. A faculty member since 1979, she is an assistant professor in the dermatology division. She is on the medical staffs of Barnes-Jewish and St. Luke's hospitals.

From childhood, Tucker had a strong interest in science. "I would bring home a dead squirrel and try to dissect it," she says with a grin. In her teens she worked part-time at an Atlanta hospital, and she briefly studied nursing while in college.

"At that time, women rarely became physicians," she says. "I thought I would never be able to do it. But in college I really liked biology and chemistry, and I thought, 'Why not try it?'"

With encouragement and support from her parents, Tucker began the study of medicine in the 1960s, after graduating with a bachelor's degree in biology from St. Mary's College in Notre Dame IN. She completed one year at the Medical College of Georgia in Augusta, then married and moved with her husband to California.

Shortly after, she gave birth to three children in three years. Her husband's job transfers kept her on the move, but nine years later, when

her youngest child began kindergarten, Tucker returned to medical school full-time at Washington University.



*Dolores Reynolds Tucker, MD, WUMCC president*

Tucker says she is grateful for the help she received as an incoming transfer student. When she came to the School of Medicine in 1972, she was older than most of the other students, and she had already established a family.

She credits John C. Herweg, MD, then associate dean for admissions, with helping to ease her transition.

Tucker says that her experiences in the early 1960s, and then in the 1970s, were noticeably different.

When she first attended medical school, there were just five women in her class. At her initial interview, she was asked personal questions about plans for marriage. Returning a decade later, she immediately felt welcome, and the number of aspiring female physicians in her class numbered 30.

Following graduation, Tucker completed residencies in pathology and dermatology at Washington University, serving as chief dermatology resident in 1979. She switched specialties from pathology to dermatology because she wanted to interact with patients. She has never regretted that choice.

Given her positive experience at the School of Medicine, Tucker says she's not surprised the university has such a high level of alumni support.

"Washington University is a wonderful school," she says. "I think we're all very proud to be a part of it, and we appreciate all of the things that the individuals who went before us accomplished. How can we not do the same for those who come after?"

In addition to Tucker, new officers for the year are: John W. Hubert, MD '75, president-elect; Darwin C. Jackson, MD '76, vice president; Jo-Ellyn M. Ryall, MD '75, secretary-treasurer.

New executive council members are: David B. Clifford, MD '75; Benjamin M. Goldstein, MD '64; David M. Reisler, MD '61; Lawrence S. Waldbaum, MD '73; Linda A. Fisher, MD, FHS; Richard Bohannon, MD '58; Arthur J. Schneider, MD '68, and Steven T. Yedlin, MD '75. ●

*“The Medical School has been and remains a world leader because of the outstanding individuals who have devoted their lives to it.”*

— WILLIAM H. DANFORTH, MD  
CHAIRMAN

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<sup>1</sup> Income from Unitrusts will vary.

<sup>2</sup> Donors, husband and wife, both age 75, at the 36% bracket. The Federal Income Tax Deduction is even greater for a Unitrust with only one beneficiary.

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# Annual Fund: A Year To Top All Others

by Tim Bahr

**T**HE School of Medicine's Annual Fund just completed one of its strongest years to date, with nearly 43 percent of medical alumni making gifts. That rate tops all previous years' medical alumni participation, according to Emily Smith, MD '68, Annual Fund chair.

"The response and support of the Annual Fund shown by our alumni has been absolutely remarkable this year," says Smith. "It really is a vote of confidence in the quality of medical education at our great School of Medicine."

Total gifts to the Annual Fund for the year ending June 30, 1998, were more than \$1.5 million. This amount exceeds all previous year-end totals and reflects a 24 percent increase over 1997. Increased support of the Annual Fund enables the school to address its priorities —

from providing financial assistance for current medical students to expanding teaching programs and student community service opportunities — with equal vigor, says Smith.

One highlight of this year's Annual Fund was the Drews Challenge, in which Robert Drews, MD '55, and his wife, Lorene, issued an initiative to recruit new Eliot Society members. The Drews made a commitment to match gifts of up to 50 new Eliot Society members joining by June 30.

Unveiled on Reunion Weekend in May, the Drews Challenge served as a catalyst for meeting the Eliot Society membership goal for the entire University this year. School of Medicine Eliot Society membership reached 637 for the year, with 185 new members and 452 renewed members.

"This was an unprecedented year for new memberships in the Eliot Society, exceeding our goal by 34 percent," says Mark Frisse, MD, Eliot Society co-chair.

"Clearly, the Drews Challenge, generating 77 new members in seven weeks, contributed greatly to our success."

Also boasting a banner year was the Program in Physical Therapy, with more than 40 percent of physical therapy alumni making gifts to its Annual Fund. One highlight for the physical therapy program was a scholarship challenge issued by Elvera Guebert, PT '47 and Lorraine Lake, PT '42.

Through the gifts made by the two graduates and the outpouring of support from physical therapy alumni, the Guebert/Lake Scholarship raised more than \$100,000.

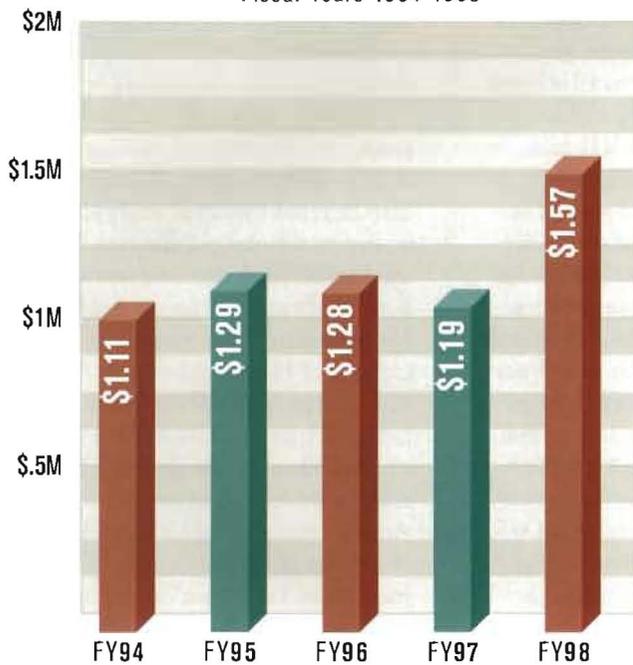
"Thanks to the generosity of Elvera Guebert, Lorraine Lake, and hundreds of alumni and faculty, we are able to better provide financial assistance for our students," says Susan Deusinger, PhD, program director

In addition, a special effort launched by the Health Administration Program (HAP) to endow a permanent, named fund currently totals \$197,960 in pledges and outright gifts. The endowment will be named for Frank Bradley, MD, founder of the Health Administration Program, and Jim O. Hepner, PhD, longtime director and professor. Fifty-five HAP alumni have participated in this special campaign. ●



Lorene and Robert Drews, MD '55, above, helped recruit 77 new Eliot Society members with their challenge.

Washington University School of Medicine Annual Fund  
Fiscal Years 1994-1998



**30s**

**Phyllis Booth Eames, OT '39**, retired from the Roanoke City Public School system and is enjoying her four grandchildren. She reports that "at nearly 83 years of age, I am in good health, still living in my own home and counting my blessings."

**40s**

**Frederick W. Knoke Jr., MD '43**, has retired from the practice of radiology in Marion IL.

**Oscar Baltrusch, MD '45**, of Billings MT, has retired after 50 years of general practice.

**50s**

**Murray Chinsky, MD '51**, and his wife have been married 49 years and have five children: Esther, Janet, Jacquelyn, Robert and Kenneth. Two are in medicine; Jacquelyn is a pediatrician and Kenneth is a pulmonologist.

**Marvin E. Levin, AB '47, MD, '51**, received The American Podiatric Medical Association's Distinguished Service Citation in recognition of his work in preventing amputation in persons with diabetes.

**Gilbert Hermann, MD '54**, received the 1998 Dr. John H. Clark Leadership Award from the Federation of State Medical Boards of the United States Inc. The award recognizes outstanding leadership and dedication to the field of medical licensure and discipline. Hermann was president of the Colorado Board of Medical Examiners from 1993-1995, during which time the board was one of the first in the country to adopt an official policy statement regarding sexual misconduct. Hermann is a clinical professor of surgery at the University of Colorado School of Medicine and chair of the Department of Surgery at Rose Medical Center in Denver.

**William D. Sawyer, MD '54**, received the Honorary Doctorate of Public Health from Chulalongkorn University in Bangkok, Thailand, in July. The degree was presented by His Majesty King Bhumibol at the University's commencement. The citation recognized Sawyer's contributions to microbiology and to health sciences education internationally and at the university, where he had assisted in establishing the College of Public Health. Prior to his recent retirement, Sawyer was president of the China Medical Board. The Sawyers now live in Georgetown TX.

**Eugene B. Feigelson, MD '56**, interim president and dean of the College of Medicine of the State University of New York Health Science Center at Brooklyn, has been named a distinguished service professor by the SUNY Board of Trustees. He recently was named one of "The Best Doctors in New York" by *New York Magazine*. In addition to his achievements in psychiatry, he is a long-distance runner and has completed the New York City Marathon.

**Robert E. Caraway, MD '56**, was named 1997 Employee of the Year by the Los Angeles County Department of Mental Health.

**Kathleen Peradotto Bode, NU '56**, chairs the Department of Health and Human Services at Flint Hills College in Emporia KS.

**T. Shelly Ashbell, MD '59, JD**, has retired from the practice of hand surgery and plastic and reconstructive surgery. He was a former professor of surgery and chief of the Division of Plastic and Reconstructive Surgery at the Chicago Medical School. He continues his solo practice as a medical malpractice litigator, representing both plaintiffs and defendant physicians.

**60s**

**Linda Turner Twelves, OT '66**, is department chair/associate professor of the OTA program at Nashville Tech in TN.

**Doris Taterka Abrams, NU '67**, is an elementary school nurse as well as a home care nurse for medically fragile, technology dependent infants and children.

**Alice Swift, NU '68**, has retired after 20 years as assistant professor of nursing at Illinois Wesleyan University.

**70s**

**Lary A. Robinson, MD '72**, and his wife, Susannah, of Tampa FL, announce the birth of their son, Noah Avery, on July 13, 1998. Noah joins his brothers, Schuyler, 7, and Joshua, 4. Robinson is a professor of surgery at the University of South Florida College of Medicine. He also is director of the division of cardiovascular and thoracic surgery and is the principal thoracic surgical oncologist of the H. Lee Moffitt Cancer Center and Research Institute.

**Edward A. Eckenhoff, HAP '74**, founder, president and CEO of the National Rehabilitation Hospital in Washington, DC, delivered the commencement speech at Touro College/School of Health Sciences in Huntington Station NY. He spoke to 248 graduates, the largest graduating class for the Barry Z. Levine School of Health Sciences in the college's 27-year history.

**Clay L. Molstad, MD '75**, has joined the St. Vincent Institute on Aging. He has practiced primary care internal medicine and geriatrics at Arnett Clinic in Lafayette IN for the last 20 years. Board-certified in both medicine and geriatrics, he also has represented the American College of Physicians on the AMA Committee on Relative Value Updates (the "RUC") since 1994.

**William Gielow Jr., OT '76**, was named Outstanding Administrator by M.O.T.A. in 1996. He is vice president of Team Rehab Inc., in St. Louis, and serves on advisory boards for Maryville University, Sanford Brown College

and Meramec Community College OT and COTA programs.

**Bonnie L. Mitchell-Clark, MD '76**, is acting chief of the pathology and laboratory medicine service at the VA Medical Center in Lexington KY.

**Deborah Rae Sattgast, PT '78**, works part-time as a home health physical therapist in Huron SD. She home schools their three children and keeps busy.

**Mark A. Wallace, HAP '78**, executive director and chief executive officer of Texas Children's Hospital in Houston, was installed as chairman of the Association of Texas Hospitals and Health Care Organizations in June. He was appointed to his current position at Texas Children's Hospital, the largest pediatric hospital in the nation, in 1989.



Mark A. Wallace

**Martin R. Shapiro, MD '79**, of Woodbridge CT has completed an MBA degree. He continues in private practice of ophthalmology and has added a fourth partner to the practice.

### 80s

**Tom A. Lassar, MD, HS '77-'81**, is associate director of cardiac catheterization and interventional cardiology, University Hospitals, Case Western Reserve School of Medicine in Cleveland.

**Bryan Apple, MD '81**, practices anesthesia in Wisconsin, just

south of Milwaukee. He would like to hear from classmates via e-mail at badboys@wi.net.

**Ralph Glasser, MD '81**, is professor and chairman of the Department of Anesthesiology at Southern Illinois University School of Medicine. He and his wife, Diane, celebrated their 17th wedding anniversary in June. They have a daughter, Sarah, 8. Glasser is also active in flying "Warbirds" (ex-military aircraft) and performs at airshows.

**Gary Kurtzman, MD '81**, and his wife **Maria Caras, MD '80**, have moved with their three sons (ages 13, 12 and 5) to Philadelphia, where he is chief operating officer of Genovo, Inc., a biotechnology company that develops gene therapy products.

**John Roberts, MD, GM '81**, is a staff scientist at NIEHS in Research Triangle Park NC. His wife, **Lee Ann Roberts, MD '80**, practices at Blue Ridge Obstetrics-Gynecology in Raleigh. They have two sons, Brian, 13, and David, a student at University of North Carolina in Chapel Hill.

**Nancy Coyne, OT '82**, sends greetings to her classmates. She lives in a small coastal community in Washington state with her husband and two boys. Last year she participated in a mentorship program to be licensed in Washington. She has not worked in the OT field for several years, but hopes to return to it soon.

**R. Stephen Surratt, MD '84**, writes that he and Jamie are loving life in Florida with their two daughters, Rebecca, 6, and Elizabeth, 3.

**Karen M. Mathews, MD '85**, was promoted to Lt. Colonel in the United States Air Force in March 1997.

**Tracy Oliver, PT '85**, has resigned from her part-time job to stay home and care for her three daughters: Sarah, 8, Amy, 7, and Emily, 3. She does on-call work as her schedule permits.

**Randy Sue Edelman Katz, PT '86**, works part-time as a physical therapist at Ohio State University Hospital. Her husband, Steven, is in private practice of ophthalmology there. Their son, Jonathan, enjoys kindergarten.

**Marijke deZoeten Onsrud, PT '86**, was married to Lars Onsrud on Dec. 7, 1995, in Phuket, Thailand. They now live and work at the base of the Tetons in Driggs ID.

**Sondra Siegel, PT '87**, recently finished her PhD in neuroscience at Emory University. She is now a postdoctoral fellow at Emory.

**Robert M Cook, MD, HS '88**, is medical director of Mercy Regional Lung Center at Mercy Hospital in Janesville WI.

**Lisa Finlay Ferguson, PT '88**, is senior outpatient physical therapist at Palms of Pasadena Hospital in St. Petersburg FL. She plans to take the advanced competency exam to become certified as an orthopaedic clinical specialist.

**Carol Courtney, PT '85**, began doctoral work in motor learning at Columbia University this fall.

### 90s

**Mary Ann Burke, PT '90**, recently returned from three-plus years of physical therapy work in El Salvador. She is moving to Minneapolis.

**Larry Meeker, PT '90**, runs two hospital contracts in Alabama with emphasis on outpatient orthopaedics. He is beginning work on an MBA. His wife, Marcia, runs the local ICU. Daughters Karin, 10, Rachel, 4, and Alyssa, 2, are all great.

**Melissa Redleaf, MD '91**, opened a second office for her pediatrics practice near her home in May 1997. Her son, Adam, 3, wants to be a firefighter; daughter Rachel just turned 1. Husband Eric enjoys his job as director of engineering for a small company. The family lives in Scottsdale AZ.

**Robert McNamara, MD '91**, is on the cardiology faculty at Johns Hopkins School of Medicine and in epidemiology at the School of Public Health. The McNamaras have one daughter, born in September 1996.

**Carly Gomez, MD '92**, is finishing her fellowship in pediatric cardiology at the University of Michigan in Ann Arbor and will stay on staff there in pediatric echocardiography.

**Susan Zinner-Kemp, HAP '92**, joined the faculty of the School of Public and Environmental Affairs at Indiana University in August. Previously, she had been a hospital administrator at Cook County Hospital in Chicago. She lives in LaGrange IL with her husband, Bob, an intellectual property attorney.

**Louis J. Novoa, MD '92**, and his wife have completed their residencies in pathology and internal medicine, and moved with their son to El Paso TX. She has an assignment at Beaumont Army Medical Corps for the next four years and he passed his boards in pathology in May and is working at Quest Diagnostics.

**David Ornstein, MD '92**, completed his residency in urology at Washington University and began a fellowship in oncology at the NIH in July 1998.

**Steven Stein, MD '92**, and his wife have just had a son, Jeremy Max. Stein writes that he is "looking forward to getting out of Texas."

**David E. Alligood, HAP '93**, and his wife, Susan, announce the birth of their first child, Lauren Elizabeth, on Aug. 15, 1997. They live in Cullman AL, where David is senior financial analyst at Cullman Regional Medical Center.

**Andrew Jason Dichsen, OT '93**, has been promoted to regional supervisor of LTC's in Southern Illinois.

**Deanne Perry, PT '93**, has a son, Benjamin Caleb Perry, born

July 12, 1996. She works for Sundance Rehab in Illinois.

**John D. York, PhD '93**, is assistant professor of pharmacology and cancer biology and of biochemistry at Duke University School of Medicine.

**R. Darin Cragen, MD '94**, will run his first marathon — 26.2 miles across the island of Oahu — on Dec. 13 as a member of the Leukemia Society of America's Team in Training. A pediatrician practicing in San Diego, Cragen is trying to raise \$9,300 for the fight against leukemia and related cancers. He invites friends and classmates to contribute to the cause by writing him at 4050 Third Ave. No. 310, San Diego CA 92103-2133.

**Nancy M. Forsyth, PT '94**, is Staff II physical therapist at Presbyterian Hospital of Dallas and a lab assistant for Texas Woman's University School of Physical Therapy.

**Corina Norrbom, MD '94**, is now board certified in family practice and joined The General Clinic in Antioch WI in October 1997.

**Daniel R. Reichner, MD '94**, begins a plastic surgery residency at the University of California at Irvine in July 1999. He will complete his training as chief resident in general surgery at Kern Medical Center this year.

**Nichol Trump Lee, MD '95**, is completing her residency and will be stationed at Quantico Marine Corps Base in Virginia in the pediatrics clinic while her husband, Gabriel, returns to the National Capital Area Uniformed Services pediatric residency after serving two years as a general medical officer in the Marines.

**Richard P. Chepey, MD, HS '96**, is chief of staff at Spohn Memorial Hospital in Corpus Christi TX, a board member of Spohn Health Systems, and a guest instructor for photographic arts workshops.

**Emily Nicole Durbin, OT '96**, works for Sundance Rehabilitation

Corp. in St. Louis. She reports that daughter Olivia, the "class baby born during first-year curriculum, is doing great and just turned 3!"

**Chandra Yolanda Bailey-Todd, HAP '96**, was a 1998 fellow in the Charles R. Drew International Training Program. As a fellow, she conducted health management research in Accra, Ghana, in Africa during the summer.

**Karen Lynn Stark, MD '96**, gave birth to a baby boy, Henry James Stark, on May 20, 1998. She is in ophthalmology residency at the University of Arkansas.

**Leila Ajans Willmore, OT '96**, resides in Indiana and works for Manor Care as a staff OT. She is married to **Theodore Martin Willmore, MD '97**.

**Damla Karsan Dryden, MD '97**, writes, "I have survived my first year of OB/GYN residency at Duke University. I love it here, although I miss my husband, Jay, who's working in Houston."

**Gregory Perron, MD '97**, writes from Virginia, "Second year FP is much nicer! I'm enjoying the D.C. area, friends and work. Stop by if you're in the area or e-mail me at Perrong@erols.com."

### IN MEMORY

**Harold Feller, MD '26**, died in St. Louis on Aug. 25, 1998. He was a retired obstetrician/gynecologist.

**Courtney N. Hamlin, MD '32**, died in Rockford IL on July 4, 1998. He had practiced internal medicine prior to his retirement.

**Eva Mae Gordon Victor, NU '33**, died in St. Louis on July 13, 1998.

**Paul O. Hagemann, MD '34**, professor emeritus of clinical medicine, died July 2, 1998, at St. Luke's Hospital of lung disease. He was 88. Hagemann supported the medical school's Alzheimer's Disease Research Center and recently had endowed the Charlotte and Paul Hagemann Professorship in

Neurology to support basic research on Alzheimer's disease. Previously, he and his first wife, Nancy, had established the Paul O. Hagemann and Nancy P. Hagemann Scholarship Fund at the School of Medicine. Hagemann obtained a bachelor's degree from Washington University in 1930. He had a staff appointment at the School of Medicine, where he was chief of the Arthritis Clinic from 1947 to 1970. His awards from the University include a Distinguished Alumni Citation on Founders Day in 1983 and an Alumni/Faculty Award from the Medical Center Alumni Association in 1984. He received the annual William Greenleaf Eliot Society Award in 1986, and the School of Medicine named a Distinguished Alumni Scholarship in his honor in 1990. In 1995, it presented him with a Second Century Award. He was to have received the Robert S. Brooking Award this fall. Among the survivors are his wife, Charlotte, St. Louis; son, Robert, Northridge CA; a stepson, Michael C. Flachmann, Bakersfield CA; a stepdaughter, Ann F. Babington, Frontenac; eight grandchildren and three great-grandchildren. Memorial contributions may be made to the Washington University School of Medicine Memory and Aging Project or St. Peter's Episcopal Church in Ladue.

**Paul T. Hartman, MD '38**, died March 27, 1998, at his home in Kirkwood of complications from progressive supranuclear palsy, a rare Parkinson's-like disease. He was 86. He served in the Army Medical Corps during World War II and was a staff psychiatrist at the St. Louis State Hospital for several years before starting a 30-year practice in Richmond Heights. He was an avid big-game hunter and won trophies for moose and bear kills in Alaska and Canada. Survivors include his wife, Sharon; daughter, Jacqueline of

Grover; son, Dr. Paul T. Hartman Jr., Schenectady NY; and three grandchildren.

**William C. Macdonald, MD '40**, died of heart failure Aug. 8, 1998, in St. Louis at age 84 following surgery. He was board-certified in internal medicine and gastroenterology and was still practicing at the time of his death. He was a member of the clinical faculty at St. Louis University's School of Medicine. During World War II, Macdonald was a captain in the Army Medical Corps and taught tropical medicine at Tulane University in New Orleans. For the past 11 years he had volunteered as a medical missionary at the Sacre Coeur Health Center in Milot, Haiti, as part of the Crudem Mission. Among his survivors are a son and five daughters.

**John Portmess Lee, MD '41**, died in Clearwater FL, on Dec. 26, 1997, at the age of 84. A native of Rochester NY, he completed residency training in orthopaedic surgery at the University of Rochester. He later moved to Clearwater with his wife, Laura, where he practiced orthopaedic surgery for more than 30 years. He was the first physician of his specialty to care for the Clearwater area community. During World War II, he received the bronze star for heroic medical service. He is survived by two sons, Gregory and David, and one granddaughter.

**Marjorie Daume Sealand, NU '43**, died Jan. 4, 1998, in Oak Ridge TN.

**Margaret Nichols Miller, NU '44**, died Aug. 26, 1997, in Grove OK.

**David D. LeGrand, MD '44**, died April 27, 1998, in Columbia MD. He was a retired psychiatrist.

**Roland P. Ernst, MD '46**, died in St. Louis June 24, 1998, of complications of pulmonary emphysema. He was 77. He had been chairman of the Department of Radiology at

St. Joseph's Hospital in Kirkwood from 1952 until retiring in 1986. He is survived by three children and two brothers.

**Lois Long Jacobs, NU '46**, died of pancreatic cancer in St. Louis June 12, 1998. She was the widow of **Charles C. Jacobs, MD '45**. She was a nursing supervisor at Barnes Hospital and taught at the School of Nursing for many years. She was active in alumni affairs and her July '46 classmates had elected her "Class President for Life." Survivors include four children.

**Howard Phillip Venable, MD, HS**, emeritus clinical associate professor of ophthalmology at the School of Medicine, died in St. Louis Aug. 8, 1998, after a long illness. He was 85. He had been a civil rights leader and devoted much time and energy to encouraging minority students to become physicians. He is survived by one daughter.

**Wesley S. Fee, MD '44**, died July 8, 1998, five weeks after suffering a stroke. After 25 years of radiology practice in Tucson, he retired and served for 13 years in a part-time volunteer position with the Indian Health Service in Alaska. He was an avid hunter and fisherman. He is survived by his wife of 50 years, **Ann Anderegg Fee, NU '47**, and three children. Fee was a life-long member of the Tucson Rotary Club, which has established the Wesley S. Fee Memorial Scholarship Fund in his honor.

**James A. Wood, MD '49**, died Aug. 9, 1998, at Bethesda West Nursing Home in Ellisville after a long illness. He was 72. Wood had been in private practice for 37 years in Clayton and Town and Country before he retired in 1994. He served in the United States Navy in World War II and was a captain in the Air Force from 1952 to 1954. He also was head of internal medicine at Webb Air Force Base in Big Springs TX. He was a past president of the Washington University Medical

Center Alumni Association.

Survivors include: sons, James A. Wood Jr., Memphis TN; John M. Wood, Jameston CO; Franklin A. Wood, Town and Country; daughters, Margaret Wood Visser, Bailey CO and Patricia Susan Richards, Swanee KS; a brother and six grandchildren.

**Alice Doty Hawkins, NU '50**, died of liver cancer Aug. 18, 1998, in Oakland IL.

**Marjorie Howard Farrand, NU '50**, died in Louisville KY on Dec. 31, 1997.

**Marie Hartmann, NU '51**, died Feb. 7, 1998, in Sacramento CA.

**John S. Schoentag, MD '60**, died in St. Joseph MO on June 8, 1998, at age 67. He practiced dermatology in the St. Louis area for 30 years. Survivors include his wife, Ruth, and four children.

**B. Leonard Holman, MD '66**, died Feb. 1, 1998, after a long illness. He was chairman emeritus of the Department of Radiology at Brigham & Womens Hospital and Philip H. Cook Professor of Radiology at Harvard Medical School. He had received such honors as the Gold Medal from the Association of University Radiologists and the Distinguished Educator Award from the Society of Nuclear Medicine. A professorship has been established in his name at Harvard Medical School. He is survived by his wife, Dale, and two daughters.

**John T. Biggs, MD, HS '74**, died April 2, 1998, in St. Louis of complications of neoplastic disease. He had practiced psychiatry for more than 25 years and was an assistant clinical professor of psychiatry at the School of Medicine. He is survived by his wife, Nancy Biggs, a daughter and two sons.

**Jonathan M. Mann, MD '74**, and his wife, Dr. Mary Lou Clements-Mann, Columbia MD, were among the 229 people killed in the crash of Swissair Flight 111 off

Nova Scotia on Sept. 2, 1998.

Mann, 51, was a pioneering AIDS researcher and advocate who had been the founding director of the World Health Organization's AIDS program. The Manns were enroute to Geneva to attend a series of global strategy meetings on AIDS sponsored by WHO and the United Nations.

After graduating from Washington University, Mann earned a master's degree in public health from Harvard University and worked for the Centers for Disease Control as an epidemic intelligence service officer in New Mexico. In 1977, he moved to the New Mexico Public Health Department, where he stayed for 10 years and was credited with helping to control bubonic plague. He then spent a year in Zaire setting up an AIDS research facility, again for the Centers for Disease Control. This experience led him to his crusade against AIDS.

On Jan. 1, 1998, Mann became the first dean of the new School of Public Health at Allegheny University of the Health Sciences (formerly known as Hahnemann University) in Philadelphia. Prior to that, he was a professor of international health and epidemiology at Harvard's School of Public Health and director of Harvard's Francois-Xavier Bagnoud Center of Health and Human Rights. He has been called both a scientific and spiritual leader because of his eloquent insistence that many health problems are rooted in human rights issues and his efforts to bring together scientists, physicians and political activists to make a concerted effort on both the social and medical aspects of disease.

Mann received the Alumni Achievement Award from the Washington University Medical Center Alumni Association in 1989, and served on the association's executive council from 1992-1995. He last visited the campus in 1994. His

wife, Dr. Clements-Mann, was a professor at the Johns Hopkins University School of Public Health's Center for Immunization Research and was working on developing AIDS vaccines. Mann was the son of alumnus **James Mann, MD '40**, who died in 1995. Mann is survived by three children from his first marriage: Naomi, a law student in Washington; Lydia, a social health worker in Boston; and Aaron, a Peace Corps member in Africa; as well as his mother, two brothers and one sister.

**Jeffrey Michael Hoeg, MD, HS '76-'79**, died July 21, 1998, of renal cancer at age 46 at his home in Potomac MD. He was chief of the Section of Cell Biology in the Molecular Disease Branch of the National Heart, Lung, and Blood Institute and was a leading researcher in cholesterol and lipoprotein metabolism. He completed an internship and residency in internal medicine at Barnes Hospital, and then worked for two years as chief resident at the Veterans Administration Hospital in St. Louis before going to the National Institute. Survivors include his wife of 25 years, Nancy Jean Hoeg, two daughters and two sisters.

**Mary O'Flaherty Horn, MD '78**, died Aug. 10, 1998, in Long Beach CA. She was 45 and had suffered a two-year struggle with ALS (Lou Gehrig's disease). She had been an associate clinical professor at UCLA School of Medicine and director of the ambulatory clinics at St. Mary Medical Center in Long Beach. She is survived by her husband of 26 years, Darwin D. Horn, PhD; three children, her mother and two brothers. Memorials may be made to the O'Flaherty-Horn Scholar Program in ALS Research, Dept. of Neurology, USC School of Medicine, 1975 Zonal Ave., Los Angeles CA 90033. ●



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'69, '74, '79, '84, '89

*Registration materials will be mailed in February.*

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Tom Palko Photography

*Holding History: Philip Ozersky holds what may be the single most valuable piece of sports memorabilia in history — Mark McGwire's 70th homerun ball. The record-setting ball came on McGwire's last at bat on Sept. 27, the St. Louis Cardinals final game of the season. Ozersky ended up with the ball after diving for it under the bleachers. Ozersky, a technician with Washington University School of Medicine's Genome Sequencing Center, was attending the game with a group of co-workers.*