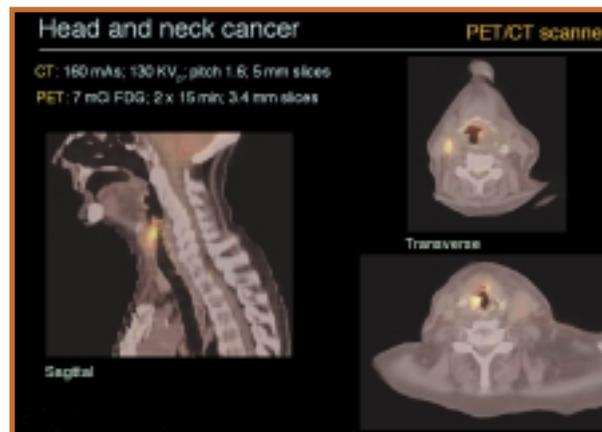




*Devoted to noteworthy happenings at the medical school . . . To stay abreast of Pitt health sciences news, see <http://www.health.pitt.edu>*

## Your PET Is in My CT

Sometimes a picture is worth more than a thousand words. This image of laryngeal cancer comes from the University of Pittsburgh and UPMC Health System's one-of-a-kind PET/CT scanner. Computed tomography (CT) scans alone of the cancer would show a fuzzy gray mass. A CT scan can distort images of tissue that has already been radiated or operated on, and it cannot detect early stage cancers. Positron emission tomography (PET) technology shows the living cancer as a bright orange glow, courtesy of a radiopharmaceutical that triggers a release of gamma rays in tumorous tissue. Yet PET scans alone don't show where tumors begin and end, images that are necessary for precise biopsies or other surgery. By combining PET and CT, says Carolyn Cidis Meltzer, associate professor of radiology and psychiatry and medical director of the PET Facility, physicians can localize cancers with great success. After two years of operation, Meltzer says the PET/CT scanner continues to draw international visitors to Pitt. The 46th Annual Meeting of the Society of Nuclear Medicine chose this scan as its Image of the Year. —ET



Pitt's PET/CT scanner is like no other.

## FOOTNOTE

Many admire Henry Bahnson, the distinguished Pitt professor of surgery. Well, he has his own heroes, including Howard Levy, who apparently blows a harmonica like nobody's business. Bahnson studied the musician's technique (anatomically and physiologically), then developed the Bahnson Overblow Harmonica. The first batch has sold out.

## NO SLIDE RULES

Guess where the National Science Foundation decided to put the most powerful supercomputer in the world available for public research? Right here. The Pittsburgh Supercomputing Center is busy setting up a \$45 million Compaq system capable of running six teraflops—that's six trillion calculations—per second. With this, and the help of a few geniuses, it just became feasible to attempt projects like modeling every atom in a DNA strand or the structure of individual blood cells as well as undertakings scientists haven't even contemplated . . . yet. —EL



COURTESY UPMC NEWS BUREAU

## STAGE DIRECTIONS

“AESOP turn right.” With a whir and a tilt, AESOP, a voice-controlled robotic arm, repositions a camera inside a patient’s body, just so. Assistant professor of surgery James Luketich has been working a lot with AESOP lately, as well as other talented new members of his surgical team that happen to be robotic systems. In UPMC Presbyterian’s new Intelligent OR suites, robotic systems—more dexterous and precise than human hands—assist in procedures for morbid obesity, acid reflux, and other conditions. Soon the robots will perform entire procedures as part of a clinical trial. Students will begin training with the technology next year. —DH

## Faculty Snapshots

**S**OME RECENT FACULTY ENDEAVORS AND KUDOS:

A recipient of a Charles E. Culpeper Scholarship, **Charleen T. Chu** plans to continue her research involving cellular mechanisms that may promote neurodegeneration in regard to Parkinson’s disease. In addition to Chu, an assistant professor of pathology and ophthalmology, the Rockefeller Brothers Fund awarded Culpeper Scholarships to three researchers from the faculties of Cornell University, Stanford University, and Washington University.

**Shi-Yuan Cheng**’s brain tumor research has not gone unnoticed. The assistant professor of pathology has been named a 2000 Kimmel Scholar by the Sidney Kimmel Foundation for Cancer Research. The award provides Cheng with \$200,000 during the next two years, which will allow him to continue his research that, ultimately, could lead to a breakthrough for blocking tumor growth.

In the May issue of *Nature Medicine*, senior author **Stephen Strom** states that life-threatening consequences are linked to an anticancer compound that had been slated for clinical trials. The associate professor of pathology and Burroughs Wellcome Visiting Professor determined that the compound (TNF-related, apoptosis-inducing ligand) causes catastrophic damage to human liver cells, though it was harmless to mice in preclinical testing.

A \$6 million National Institutes of Health renewal grant was bestowed upon the University’s **Brain Trauma Research Center**; it allows researchers to continue exploring why some patients recover better than others from brain swelling following head injuries. During the five-year span of the grant, researchers also hope to illuminate the role drugs play in treating brain injuries.

**Bartley P. Griffith** is the principal investigator in Pittsburgh of a multicenter study that may eliminate the need for donor blood during surgery. The perflubron emulsion being tested by the professor of surgery may allow surgeons to remove significant amounts of blood from patients before they undergo a procedure and also permit patients to bleed beyond the point at which a transfusion is normally required. The hope is that the need for donor blood during surgery will be reduced or entirely eliminated. Forty centers are participating in this international trial. —RM



Chu



Strom



Griffith

## FOOTNOTE

“In planning a perilous journey, it pays to know your companions and not to have too many of them.”

—Thomas E. Starzl

*The Puzzle People: Memoirs of a Transplantation Surgeon*



## No Spilt Blood

TRANSFUSIONLESS SURGERY | BY CELESTE KIMBROUGH

ONLY FLESH WITH ITS SOUL—ITS BLOOD—YOU MUST NOT EAT.

Genesis 9:4 is a primary reason Jehovah's Witnesses refuse blood transfusions. Each year, one-half million followers of the religion assert that spilt blood may not be reintroduced into the body under any circumstances. To aid Jehovah's Witnesses in need of heart surgery, Brack Hattler, professor of surgery at the School of Medicine, has established the Bloodless Cardiac Surgery Program, in which transfusions are not only unnecessary, but also prohibited.

Here's how the approach works. Before surgery, the patient and surgeon forge a contract. The contract releases a surgeon from liability and prevents the surgeon from transfusing blood even under life-threatening conditions. However, by a rigorous screening of surgery candidates, the likelihood of an emergency decreases markedly. Hematologists ensure that a candidate possesses a well-orchestrated clotting system and is free of blood thinners. Before the procedure, the patient takes Epogen to stimulate red blood cell production. (Epogen is administered until the hemoglobin count reaches a level of 15 or the hematocrit 50.) The surgery lasts about an hour longer than traditional procedures because surgeons must seal off broken capillaries using a laser coagulator.

The program took shape this year, but throughout the past 10 years, Hattler has performed more than 100 transfusionless surgeries. Recovery time averages just one day longer.

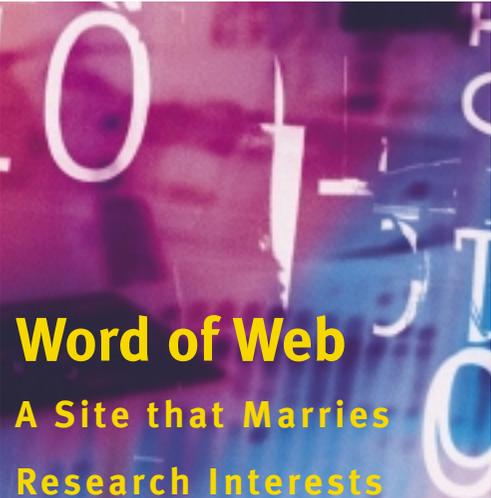
The program plans to target areas with significant populations of Jehovah's Witnesses, including the religion's founding city, Pittsburgh. In the long run, Hattler envisions a much wider population benefiting: "In general, most patients would prefer not to be transfused. This technology could potentially be the most desirable option for the general population and eventually become a standard in surgery."

## Flashback

**This debate has bridged centuries. Found in the 1946 Hippocratican, re proposed socialization of medicine:**

**"Of such is the peculiar political philosophy of practically all the social planners who hope to achieve their socialistic ambitions through federal legislation—legislation which would, in a few short years . . . dry up the private funds and local tax sources which now provide for hospitals and medical schools. . . ."**

—Walter F. Donaldson  
1946 Editor  
*Pennsylvania Medical Journal*



## Word of Web

**A Site that Marries  
Research Interests**

**S**o, there you are, one of about 1,500 faculty members at the University of Pittsburgh School of Medicine, and you think you might be on the brink of a treatment for (fill in the blank). If only you better understood the pathogenesis of (fill in the blank). And there must be someone who would be good at designing something that would (blankety-blank). How do you find the right collaborators?

Sometimes word of mouth takes you only so far. That's why—as part of the Pittsburgh Integrated Advanced Information Management Systems Program—Pitt's Center for Biomedical Informatics, Health Sciences Library System, and Office of Research-Health Sciences are creating the Faculty Research Interests web site. It relies on the National Library of Medicine's MEDLINE keyword system to help make sense of the University's small universe of information.

Developers say the site also will allow administrators to target announcements about funding opportunities, help students and postdocs find appropriate labs in which to train, and enable scientists from other organizations to find research partners. The site was launched this summer at the School of Medicine; developers will roll in other health sciences faculty information starting this fall. —EL

**FOR MORE INFORMATION:**  
<http://www.cbmi.upmc.edu/~friip/index.html>



BONNIE L. PETERSON/FIBERART INTERNATIONAL

## Appointments

**A** FEW OF THE WELCOME ADDITIONS TO THE SCHOOL OF MEDICINE'S FACULTY:

**Andrew M. Yeager** found himself featured in *Time* magazine after performing a stem cell transplant that effectively cured one of his young patients of sickle cell anemia. (Stem cell transplantation involves the replacement of malfunctioning or cancerous cells with precursors of normal, healthy cells, i.e., stem cells.) Yeager performed



Yeager

this pioneering procedure while at Emory University in Atlanta, Georgia, as a professor in the Departments of Medicine and Pediatrics. He has joined Pitt's Departments of Medicine and Pediatrics and will direct a stem cell transplantation program here. He intends to further his research in stem cell transplantation for diseases such as leukemia, lymphoma, scleroderma, multiple sclerosis, and systemic lupus erythematosus.

Diagnosis and treatment of such diverse disorders as Parkinson's disease, spinal cord injury, stroke, obsessive-compulsive disorder, and autism all relate to the research of **Peter L. Strick**, who is now a professor in the Departments of Neurobiology and Psychiatry. Strick—most recently the George Perkins Professor of Neurosurgery at the State University of New York Upstate Medical University in Syracuse—focus-

es on the structure and functions of brain regions concerned with the control of movement and cognition. Strick is codirector of the Center for the Neural Basis of Cognition.

**Ross Zafonte** has been appointed chair of the physical medicine and rehabilitation department. He is particularly interested in the rehabilitation of patients with traumatic brain injuries. His research centers on promoting recovery by employing a combination of medications and therapy. Through his work, he hopes to improve the accuracy of prognoses for patients. Prior to coming to Pitt, he was the interim chair of the physical medicine and rehabilitation department at Wayne State University in Detroit, Michigan. —RM



Zafonte



JOE KAPLEWSKI/DOE

### THEY WON'T CATCH A CHILL

The afternoon of August 6 was hot and muggy—certainly no need to bundle up. Yet among the Class of 2004, seated 10 rows deep in Scaife Hall, not one minded wearing a coat. A White Coat. After he was formally “coated” at the Medical Alumni Association sponsored ceremony, Leon McCrea, MD '04, (left) talks with Brian K. McNeil, MD '01.



COURTESY GRUDBERG

## Alumni Checkup with Sarah Clark Grudberg

**T**here are many paths to medical school. Some are traditional. Some are nontraditional. Some appear, at first, preposterous. Sarah Clark Grudberg, MD '99, chose the preposterous route.

Sure, she received good grades at a “typical big suburban high school” near her Woodbridge, Connecticut, home. And she was accepted to Yale University, as were her father before and her four older brothers, too. Smart family. With one caveat. “I did not do well at Yale,” admits the history major. “Not at all! I had a fantastic, wonderful, happy time at Yale, most of it outside the classroom.”

Sounds like a fun way to approach school. Sounds like a way to wind up as a hostess at Pizzeria Uno. “Do you prefer the smoking or nonsmoking section?” was the daily question for the Ivy League graduate with a 2.9 GPA.

“I definitely didn’t have focus,” she says.

Her hostess stint lasted only a few months. Then she and a good friend traveled to Thailand, where they spent six months soaking up the culture while teaching English. Why Thailand? “It was the decision of an unsophisticated 22-year-old brain,” she recalls. “My friend and I thought, ‘Oh, everyone goes to Europe. Why don’t we go to someplace interesting, like Southeast Asia?’”

She moved to the Boston area and joined Lotus Inc. in an administrative position. Three years later, she was a “quality assurance engineer,” and even though she liked the company, she says, “It’s not that compelling to me to make a spreadsheet.” Medicine, at last, entered the picture. “I had done enough hanging out to know that I wanted something more,” she says.

Off to night school she went at a “fantastic” public access program through Harvard University. She started with chemistry and did well: “I loved it, and I showed myself: I can do this.” Two years later she

had completed all the courses necessary to apply to medical school. Then came the MCATs. The results (which she politely declined to reveal publicly) placed her in the upper echelon of prospective medical school students.

Upon her graduation last year from the University of Pittsburgh School of Medicine, she received the Humanism in Medicine Award from the Health Care Foundation of New Jersey. The award recognizes a student who “consistently demonstrates compassion and empathy in the delivery of care to patients; illustrates professional behavior by example; shows respect for everyone she comes in contact with . . . [and] shows good rapport with patients.”

Grudberg—slightly more than a decade removed from her days as a restaurant hostess—is in her second year of the internal medicine residency at Brigham and Women’s Hospital in Boston. What were the odds? —RM

“At the Pittsburgh University Medical Center the investigation continues into the murder of surgical resident Kevin Hoover.”

—Excerpt from *Abra Cadaver*

Physician James Tucker uses a thinly veiled academic medical center and a med school we all know as the backdrop for his medical/magic suspense series: *Abra Cadaver*, *Hocus Corpus*, and his latest book, *Tragic Wand*, released this month. Tucker did his residency at Children’s Hospital of Pittsburgh, so his hero, Jack Merlin, MD, is no stranger to Scaife Hall, the Original Hot Dog Shop, among other Oakland—excuse the pun—haunts. —RM

