

Devoted to noteworthy happenings at the medical school . . . To stay abreast of school news day by day, see http://www.health.pitt.edu

Honored Twice Over by Howard Hughes

An organ waiting to be transplanted is chilled to 4 degrees Celsius. When the organ is placed in its recipient and reattached to a blood supply, the blood suddenly flowing through the cold organ damages it, inflicting cold ischemia reperfusion injury.

Last year, Gautam Yagnik, MD '03, worked in the lab of David Geller, the Samuel B. Harbison Assistant Professor of Surgery, where he explored the use of the amino acid L-arginine to reduce cold ischemia reperfusion injury and showed that it was of benefit. Yagnik's year in Geller's lab was funded by a Howard Hughes Medical Institute (HHMI) research fellowship.

This academic year, Yagnik received a second honor from HHMI—a continued support fellowship. Of the 53 medical students from around the country who received an HHMI research fellowship in 2000, only 13 were selected to receive the continued support award. The grant provides Yagnik with $34,000 per year during his last two years of medical school.

Pitt must have good HHMI karma, and good potential investigators. Genevieve Ambrose, MD '04, and Kevin Sullivan, MD '04, both received HHMI research fellowships this year. *—DH*

PATRICIA NAGLE



Yagnik

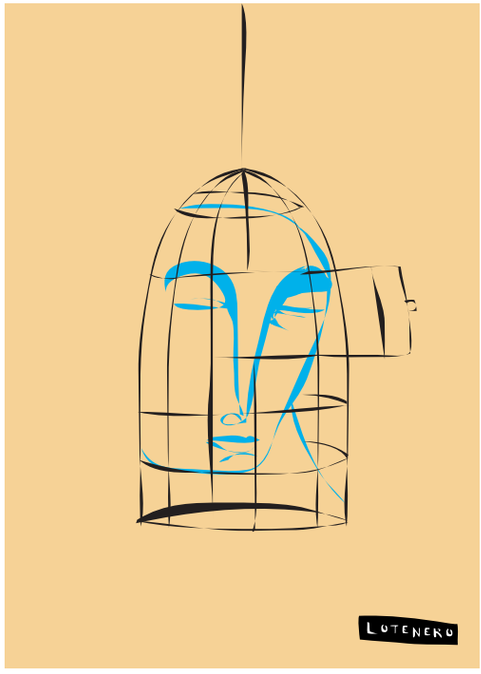
FOOTNOTE

Dan Lesser, he's quick. We don't say that because the third-year Pitt med student garnered a Society for Pediatric Research fellowship or because he's bright. We mean he's *really* quick—whoosh, zip, vroom kind of quick. The former New York state cross-country champ beat all other Pittsburghers in the Great Race and in the Pittsburgh Marathon in 2001. The marathon, his first, took him just 2 hours, 35 minutes, and 35 seconds—with an injury.

SMALL DOSES OF HAPPINESS

At a solo concert last May, the PalPITTations, the medical school's new a capella group, debuted some lyrics the members wrote themselves. "We sang a song poking fun at the [graduating] fourth years, who every single day would send us multiple e-mails trying to get us to buy their various garbage—futons, televisions," says group president Zachary Miller, MD '04. They might nudge a graduating class along the way, but the performers, now 24 strong, make it clear that their playful lyrics are all about spreading cheer. "Our hope is that we bring happiness on a small scale," says Miller. The PalPITTations already have brightened spirits at Children's Hospital of Pittsburgh, alumni events, the Mini-Medical School graduation, and this year's meeting of the Association of American Medical Colleges. *—DH*

TO ORDER A CD: zam1@pitt.edu



AT THE BOTTOM OF DESPAIR | BY DOTTIE HORN

A patient with end-stage kidney failure wants to be taken off dialysis. With the treatment, she's likely to live; without it, she will die in a matter of days, perhaps weeks. It may be the inescapable burden of dialysis that has put her in this state of mind. Or it may be that she feels abandoned by her spouse or overwhelmed by disappointments. If presented with a thoughtful plan of care that takes emotional and other issues into account, this patient is likely to choose to continue treatment—and give herself a few more years. Before this can happen, her physician must know how to talk to her, to get to the bottom of the despair.

A medical student may be intimidated at the thought of having that conversation. David Barnard, professor of medicine at the University of Pittsburgh, wants medical students to know how to negotiate such difficult conversations—and to be well informed about a spectrum of end-of-life care issues. With the help of a four-year, $750,000 grant from the National Cancer Institute, Barnard will make end-of-life issues a more prominent part of the education of every Pitt medical student.

Barnard will use the grant partly to develop new material for the first- and second-year curricula. The grant will also support training workshops for clinical faculty members who teach students in the third and fourth years and a pilot program in which 12 Pitt med students regularly visit patients who are terminally ill.

"In a typical medical school, students can go through all four years of training and never actually spend time with a patient who is dying," says Barnard. "There's a mismatch between the way medical education is set up and the needs of dying patients. It's that mismatch we are trying to address."

Faculty Snapshots


Harrison

In Maryland, the incidence of meningococcal disease (which is one type of bacterial meningitis) in adolescents and young adults aged 15 to 24 steadily increased from 1990 through 1997, then began to fall in 1998. "If you look at the trends in smoking in adolescents during the 1990s, they mirror almost exactly this trend in meningococcal disease," says **Lee Harrison**, assistant professor of medicine and epidemiology. "I strongly suspect that at least some of the changes in incidence of meningococcal disease were due to smoking changes," says Harrison. His study was published in the August 8 issue of the *Journal of the American Medical Association*. Harrison is now pursuing a multistate study to see if smoking is indeed a risk factor for the disease.

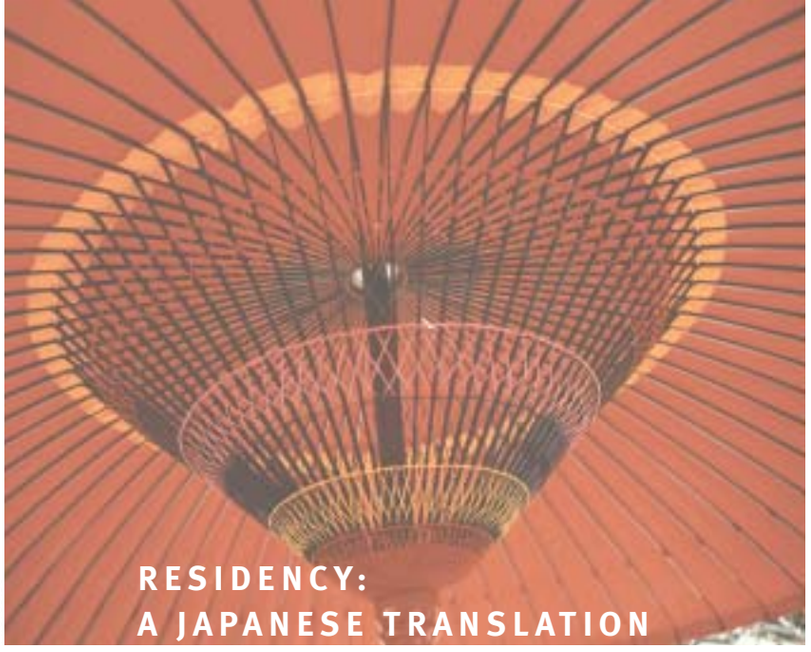
In July, the University of Pittsburgh Cancer Institute received a five-year, $12 million grant from the National Cancer Institute to study lung cancer. The award, called a Specialized Program of Research Excellence (SPORE) grant, will support five research projects. Two of the projects, led by **Jill Siegfried**, professor of pharmacology, look at why women are more susceptible to lung cancer than men. **Joel Greenberger**, professor of radiation oncology, will assess whether gene therapy can help protect normal tissue in the esophagus and lung from damage inflicted by radiation therapy. **Joel Weissfeld**, associate professor of epidemiology, will focus on the use of multidetector CT (computed tomography) to detect lung tumors when they are extremely small and likely to be curable. **Olivera Finn**, professor of immunology, will examine the protein cyclin B1 as a possible vaccine against one type of lung cancer.


Still ticking after 12 hours.

HEART AND GIRL (RIGHT): COURTESY UPMC NEWS BUREAU

A human heart kept beating, outside a body, for 12 hours—to most, this sounds spooky, great fodder for the likes of Edgar Allan Poe. To **Robert Kormos** and colleagues it sounds wonderful. In October, a Portable Organ Preservation System (POPS), engineered by TransMedics, of Woburn, Massachusetts, was tested on a human heart for the first time. The preclinical test took place at Pitt and marks the longest any such device has kept a heart beating in, what appears to be, its normal physiological state. Much more testing is needed and under way, asserts Kormos, Pitt professor of surgery as well as director of thoracic transplantation and the artificial heart program. If POPS continues to meet with success (as it has in animal studies), that could mean great things for advancing transplant surgery. The "shelf life" of a heart without blood flowing through it is about six hours. POPS designers believe the suitcase-sized unit would allow organs to be transported over longer distances and reduce complications for transplant recipients. "It's very encouraging, but very early," notes Kormos. *—DH & EL*

FOR MORE ON POPS: **http://www.upmc.edu/newsbureau/tx/pops**



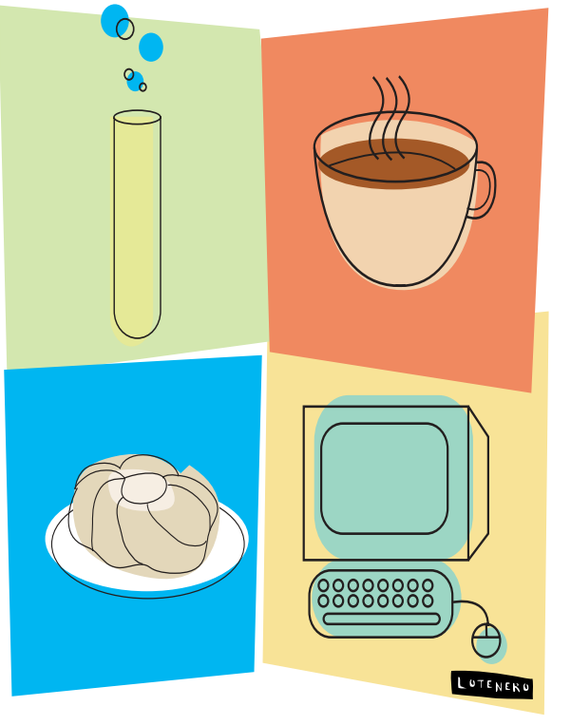
PHOTODISC

RESIDENCY: A JAPANESE TRANSLATION

In the United States, residency training emphasizes hands-on learning, the mastery of specific skills. As their residency continues, trainees typically take on more and more responsibility for patient care. In Japan, by contrast, residents spend little time directly caring for patients and most of their time observing a senior mentor. The Teine Keijinkai Hospital, in Sapporo, plans to establish a residency training program more like those in America—in collaboration with the School of Medicine and UPMC Health System. Codirectors of the program, which will accommodate six internal medicine residents in its first year, are Asher Tulsky, assistant professor of medicine at Pitt, and Hironori Murakami, an MD at Teine Keijinkai Hospital. ***—DH***

No Coffee, Thanks

An unshaven 20-something man sporting scrubs rushes into the Masonic Temple ballroom, making a beeline to the massive table covered with mountains of bagels and cheese Danish, plates of fruit and eggs, and pitchers of coffee and juice. On the other side of the room, another 20-somethinger, this clean-shaven fellow wearing a three-piece suit, is telling a TissueInformatics representative that he is perfect for the company because he will soon graduate with majors in both business and biology.



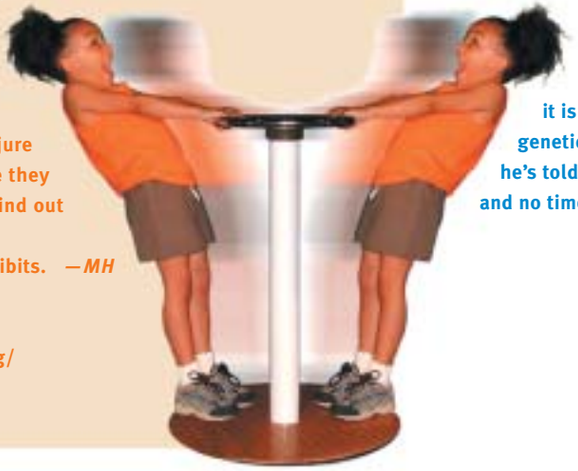
The man in the scrubs slips out after taking a few minutes to gobble the breakfast he borrowed from @PGH Café, which is one of the many events that's part of the University of Pittsburgh's inaugural three-day research festival known as Science 2001: A Research Odyssey. Most of the people here on this September morning, decidedly, do not see the food as the main attraction. The café is a relaxed-atmosphere job fair intent on recruiting science and biotech employees for 30-some Pittsburgh science and technology companies; it has attracted a total of about 300 undergraduates, graduate students, and postdocs from Pitt and other local universities.

TissueInformatics won't be scheduling an interview with the young man in the three-piece suit—not right now anyway. Today the company is hoping to fill openings for software technicians; and it is always on the lookout for cell biologists and geneticists. *Keep in touch, something might open up,* he's told. He gets out another resume—29 recruiters to go, and no time for coffee breaks. ***—MH***

WHOA!

Head over to the North Side for a little bobsledding. You won't get cold or wet if you try the virtual sleds at UPMC SportsWorks, a new exhibition at the Carnegie Science Center. If you're eager to move beyond things virtual, there are plenty of other ways to entertain yourself there as well. Atop a 15-foot-high steel I-beam you might pedal a unicycle (that has been safely counter-weighted) or, on a 40-foot-long track, race Jackie Joyner Kersee (okay, it's only a video of the Olympic star).

Faculty members from the School of Medicine helped develop many of the educational displays that are part of the exhibits. One display, at the rock-climbing wall, shows all of the muscles used while climbing. Another discusses how women who play volleyball or basketball often injure an anterior cruciate ligament because they aren't landing properly. Visitors can find out the proper way to land.



SportsWorks has more than 40 exhibits. ***—MH***

FOR MORE INFORMATION:
http://www.carnegiesciencecenter.org/upmc-sportsworks/sportsworks.htm



It's easy to see how artist Mary Hamilton's linoleum-block images, which are infused with playfulness and animal imagery, were a welcome break at UPMC Shadyside. "It's healthy to laugh," Hamiliton notes. "And animals serve as great healers in all kinds of ways." The exhibit ran through November.

PATRICIA NAGLE

Appointments

As the chair of Pitt's new critical care medicine (CCM) department, **Mitchell Fink**, Watson Professor of Surgery, plans to reach out to select community hospitals. Some of these institutions currently have no CCM specialists; others lack round-the-clock coverage. He would also like to see the new department further strengthen research efforts related to the epidemiology of critical illness, genetic markers for sepsis, molecular biology of traumatic brain injury, use of hypothermia to improve outcomes from hemorrhagic shock, as well as other areas. Fink's own studies focus on the effect of inflammation on organ system function in sepsis and septic shock. His research is funded by the National Institutes of Health and Defense Advanced Research Projects Agency. "We have discovered a new therapeutic agent that we think might be of value for the treatment of victims of a bioterrorist attack," he says.



Fink



Gallion

Holly Harbage Gallion, formerly a professor at the University of Kentucky in Lexington, joined Pitt in August. In Pittsburgh, she will direct the National Center of Excellence in Ovarian Cancer at Magee-Womens Hospital and continue her research on the early detection of ovarian cancer. By pinpointing genetic and biochemical abnormalities, she hopes to develop new methods for screening. Gallion is on the editorial board of the journal *Gynecologic Oncology* and PDQ, an online database sponsored by the National Cancer Institute.

Olivera Finn has been appointed acting chair of the School of Medicine's newly created Department of Immunology. Finn's goal is to attract "hungry" investigators who want to explore developing immunology disciplines such as immunogenomics, proteomics, and signaling. For more on Finn, see page 30 profile.



Gorin

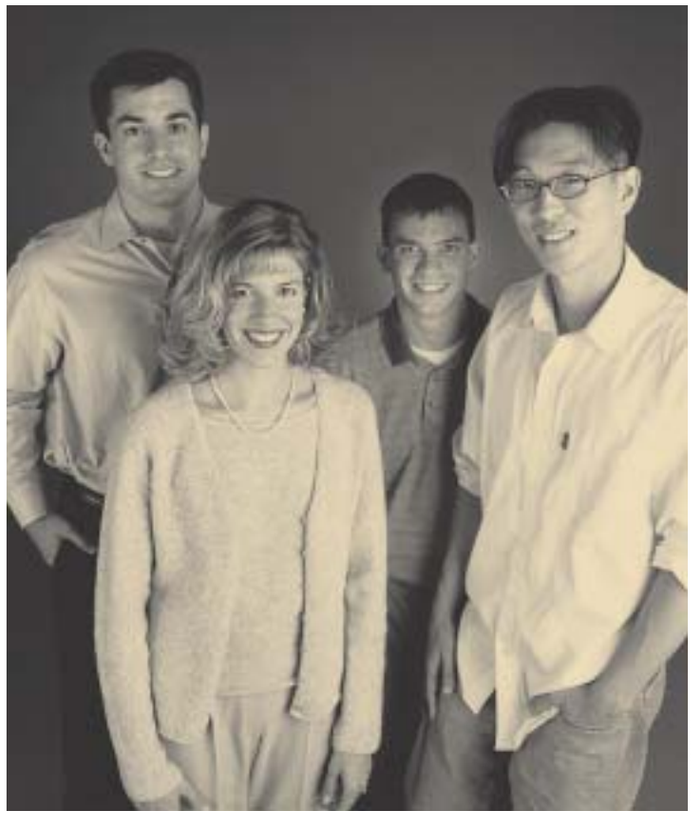
Michael Gorin, professor of ophthalmology, was recently named acting chair of the Department of Ophthalmology after serving more than three years as interim chair of the Department of Human Genetics for the Graduate School of Public Health. He plans to expand the department's research efforts in the following areas: diabetic retinopathy, corneal engineering (the creation of an artificial cornea), and gene therapy for the treatment of eye diseases of the retina and the cornea. To read about Gorin's own work, see page 8. —*DH*

FLASHBACK

On September 11, Steve King, MD '01, headed to Ground Zero to help at impromptu triage areas. But like so many others, King, an emergency medicine resident at Beth Israel Medical Center, found no one to mend. The injured never arrived. He and the rest of New York were met instead by a flurry of paper. That ate away at him. Millions of printed e-mails, memos, contracts, remnants of lives, limped downward to rest in pools of water and piles of concrete dust or stumbled into backyards in Brooklyn. But these belonged in desks, briefcases, filing cabinets; never were they meant to be ripped loose to flail in the wind.

SMELL THE ROSES AND ACE THE EXAMS

MOST WANTED STUDY PARTNERS | BY JENNIFER LEE



PATRICIA NAGLE

FROM LEFT: **Madder, Brandt, Golob, and Park nabbed the Class of 2004's basic science excellence awards.**

At the Omni William Penn Hotel in downtown Pittsburgh, polite company pour cream or squeeze slices of lemon into cups of hot, dark tea. A young woman plays a grand piano; Gershwin songs punctuate the afternoon's conversations, accompanying the clink of spoons set down onto saucers. The patrons, who stop occasionally to listen between sips, might recognize the pianist. Maybe they heard her playing at Lucca on a Saturday night as they dipped slices of bread into olive oil and someone sang show tunes. They probably do not know, however, that in her other life, Lynsey Brandt is a medical student. And it might never occur to them that playing the piano could help someone become a better doctor.

For Brandt, MD '04, performing is one way to balance the rigors of medical school. One of four students who earned a First Year Award for Excellence in the Basic Sciences, Brandt says she was terribly nervous about doing well at Pitt, "So I would study, study, study." Brandt, who is 25 and also holds a doctorate of pharmacy from Duquesne University, says she had to teach herself to relax, to not let the world pass her by:

"As physicians, we have to continue growing in all aspects of our lives. We have to experience the beauty of the world."

Brandt's fellow winners—Ryan Madder, Joe Golob, and Samuel Wan Park—likewise make real efforts to get away from their studies and rejuvenate. Park, 24, will admit, almost reluctantly, that he loves to play video games. *This doesn't seem very medical student-like,* his voice seems to say. Nor does reading all the Harry Potter books, something Park reveals in a similarly embarrassed tone. Park studied molecular and cell biology at the University of California, Berkeley before switching to economics because he thought it would offer him a deeper challenge. He says that before that he was a typical teenager, too cool to worry much about what he would be when he grew up. And medicine had left a bad taste in his mouth after seeing his brother fight off pituitary cancer. Somewhere along the way, he changed his mind about medicine—he's clearly inspired by its potential now and holes up on weekends cramming. One thing hasn't changed from those teenage days; Park is convinced there's nothing like a good game of, say, Starcraft for refueling.

Ernest Hemingway's stories appeal because the characters lead such relaxed lives.

Madder, 24, who studied biochemistry at Swarthmore College in Pennsylvania, says Ernest Hemingway's stories appeal because the characters lead such relaxed lives. Finding time for leisure in his own story certainly isn't easy; at the same time he's not willing to neglect the challenge. "A lot of the way I study has to do with the fact that I'm married," Madder says. He'll be up at the crack of dawn to study before class, and often work through lunch so he can stop by dinnertime and spend the evening with his wife.

Golob, 25, thrives on early morning study sessions. Weekends are when he excels at unwinding. Whenever he can, he takes his boat out to compete in daylong bass fishing tournaments. After graduating from the University of South Carolina with degrees in biology and chemistry, Golob spent two years working in an artificial lung lab at what was then the McGowan Center for Artificial Organ Development. That's when he bought the boat, about the same time he applied to medical schools. (It took two rounds of applications before he was accepted, making this award especially sweet.) There's always some other school project for which he can prepare, but out on the river, with the light bouncing off the water, Golob's charge is just to sit and wait.

FOOTNOTE

So much for the good life. New Pitt MDs are paying an average of $2,200 every month just in student loan payments. On a resident's salary, there isn't much left for rent, car payments, day care, utilities. . . . (For more information or to help, call 877-MED-ALUM.)