

Devoted to noteworthy happenings

at the medical school

NEW LEADER AT STARZL INSTITUTE

Abhinav Humar has come to the University of Pittsburgh to take on the clinical directorship of the Thomas E. Starzl Transplantation Institute. The former director of the Liver and Living Donor Programs at the University of Minnesota Medical Center also serves as chief of the Division of Transplantation in the Department of Surgery.

The surgeon said he was attracted to the job by the Starzl Institute's stellar reputation, a reputation he plans to burnish. "If you ask people around the world about transplant, Pittsburgh would be at the top of the list," Humar says. "I appreciate that reputation and the opportunity to improve it."

Humar made his own reputation as an expert in abdominal transplantation but plans to be hands-on in advancing all the institute's programs. "We're going to reach out to the community and make sure that people know we are the place for transplant care from step A to step Z," Humar says. *—Joe Miksch*

FOOTNOTE

Acharya Yashovijaysuri, a guru of Jainism and spiritual leader to millions, only travels by foot so that he may avoid harming even insects. But desperate times call for desperate measures, and he was going blind. The guru flew to Pittsburgh from India after doctors in Mumbai found a golf ball-size tumor pressing on his optic nerve. They deemed it too risky to operate through the cranium. His followers convinced him that minimally invasive brain surgery through the nose—a procedure developed at Pitt—was an option. Days after surgery, the guru began to regain his vision.



COURTESY CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC

Congrats! It's a Bouncing Baby Hospital

On March 4, David Perlmutter moved into his digs in the recently completed John G. Rangos Research Center building, part of the new Children's Hospital of Pittsburgh of UPMC. Two months later, patients arrived next door at the new nine-story, 296-room hospital building on a 10-acre, $625 million campus (the former site of St. Francis Hospital in Lawrenceville).

Perlmutter, the chief physician and scientific director at Children's and the Vira I. Heinz Professor and chair of pediatrics in the University of Pittsburgh School of Medicine, described the view from his perch: "It's beautiful. I'm looking at the hospital and the river and the North Shore and the neighborhood of Lawrenceville. It's just spectacular."

Almost as spectacular as the hospital itself. Perlmutter says that more than 90 percent of patient rooms are private and that they are considerably larger than those in the Oakland facility. "The design of the rooms is ideal for families, and we believe that has everything to do with how children handle illness," he says.

The hospital boasts a 100 percent paper-free record system, has many more intensive care beds, and it concentrates particular kinds of care on specific floors. (Cancer patients are on the ninth and cardiac patients on the third, for example.) The research facility follows the open-lab model used in Pitt's Biomedical Science Tower 3 and offers investigators a great deal more space. "This will enable us to continue to recruit great pediatric scientists," he says. *—JM*



CAMI MESA

A&Q

Marc-David Munk: Emergency Medicine Abroad

Marc-David Munk (Res '06, Fel '07), shown above, worked as a paramedic, earned a master's degree in public health, and, subsequently, an MD. He was the first graduate of the University of Pittsburgh's fellowship in international emergency medicine. After graduation, he worked as the EMS medical director for UPMC's emergency medicine development project in Qatar and trained EMS workers in the Caribbean and Africa. Today, he is the fellowship program's assistant director and clinical assistant professor of emergency medicine in the School of Medicine. After returning from a stint with the Flying Doctors service out of Nairobi, Munk spoke about the challenges of updating emergency care outside the United States.

On the birth of Pitt's international emergency medicine fellowship

We had no difficulty getting buy-in, initial financial support, and departmental approval—despite the fact that international emergency medicine was new and unproven. I think that the Department of Emergency Medicine has always been willing to take chances, to try new things, and this was certainly true in our case. Our chairman, Dr. Paul Paris, is himself an innovator and unorthodox thinker, and he has set the tone for the entire department. I don't think that anyone is afraid to speak up, to try new things, or to take risks. This is really what is behind Pittsburgh's reputation as one of the world's leading centers for academic emergency medicine.

On the nature of international emergency medicine

Road traffic accidents and trauma are becoming the leading cause of death in [developing nations], and we're seeing that patients are getting older because we've managed to deal with things like malaria and diarrhea in many parts of the world. Patients are now coming in with heart attacks and diabetic emergencies and those kinds of things. If you're looking to make a dent in mortality, you have to start focusing on things like ambulance systems which can deal with time-critical disease.

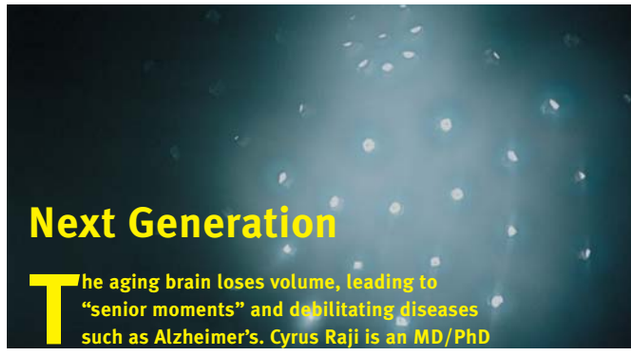
On the future of the fellowship

There's a huge amount of interest. People are always looking for options and opportunities to go abroad and study, which I think is valuable. It's very important for folks to spend some time seeing how medicine is truly practiced in the vast majority of the world.

His question for the world

I'd like to talk to the heads of funding agencies to really impress upon them the urgency of this changing epidemiology and ask, "Are you willing to support our research and our clinical efforts?"

—Interview by Joe Miksch



Next Generation

The aging brain loses volume, leading to "senior moments" and debilitating diseases such as Alzheimer's. Cyrus Raji is an MD/PhD student in pathology at the University of Pittsburgh working with James Becker, a PhD professor of psychiatry, and Oscar Lopez, an MD professor of neurology. Raji studies whether vascular diseases, diabetes, and high blood pressure lead to brain atrophy. He won a prize for best neuroscience paper by a medical student from the American Academy of Neurology. That paper used brain imaging from MRIs to explore the link between heart and brain health. Raji plans to devote his career to studying the aging brain. "I think dementia robs us of the fundamental aspect of who we are," he says.

Traumatic brain injury is a leading cause of death in children, and neurosurgeons have tried to improve the odds for injured children by maintaining oxygen to the brain. Veronica Ortiz, a second-year medical student, received a Dean's Summer Research Program grant to investigate how different brain temperatures affect oxygen in that organ. The study, which she presented at the annual congress of the Society of Critical Care Medicine, found that changes in brain temperature cause small variations in brain oxygen levels, but they are not likely to be clinically relevant. Ortiz plans to keep studying traumatic brain injury to help injured children. Her advisers include Michael Bell, an MD assistant professor of critical care medicine and associate director of pediatric neurointensive care in Pitt's Safar Center for Resuscitation Research, and Patrick Kochanek, MD professor of critical care medicine and director of the Safar Center.

A child who grows up in poverty may experience the chaos of violence and drugs in her neighborhood, strained family bonds, and poor nutrition. Those childhood stressors have been linked to depression and other changes in health later in life. Jeffrey Horenstein, a third-year MD/PhD student at Pitt, studied MRIs of adult brains to write his dissertation on the link between socioeconomic status and mental and physical health. Horenstein, who received a National Research Service Award from the National Institute of Environmental Health Sciences, plans to apply his lab research to suicide and alcohol prevention with the Indian Health Service. Horenstein's adviser is Sheldon Cohen, Carnegie Mellon University's Robert E. Doherty Professor of Psychology, who has adjunct appointments at Pitt.

—Christina Rouvalis

Learning to Educate

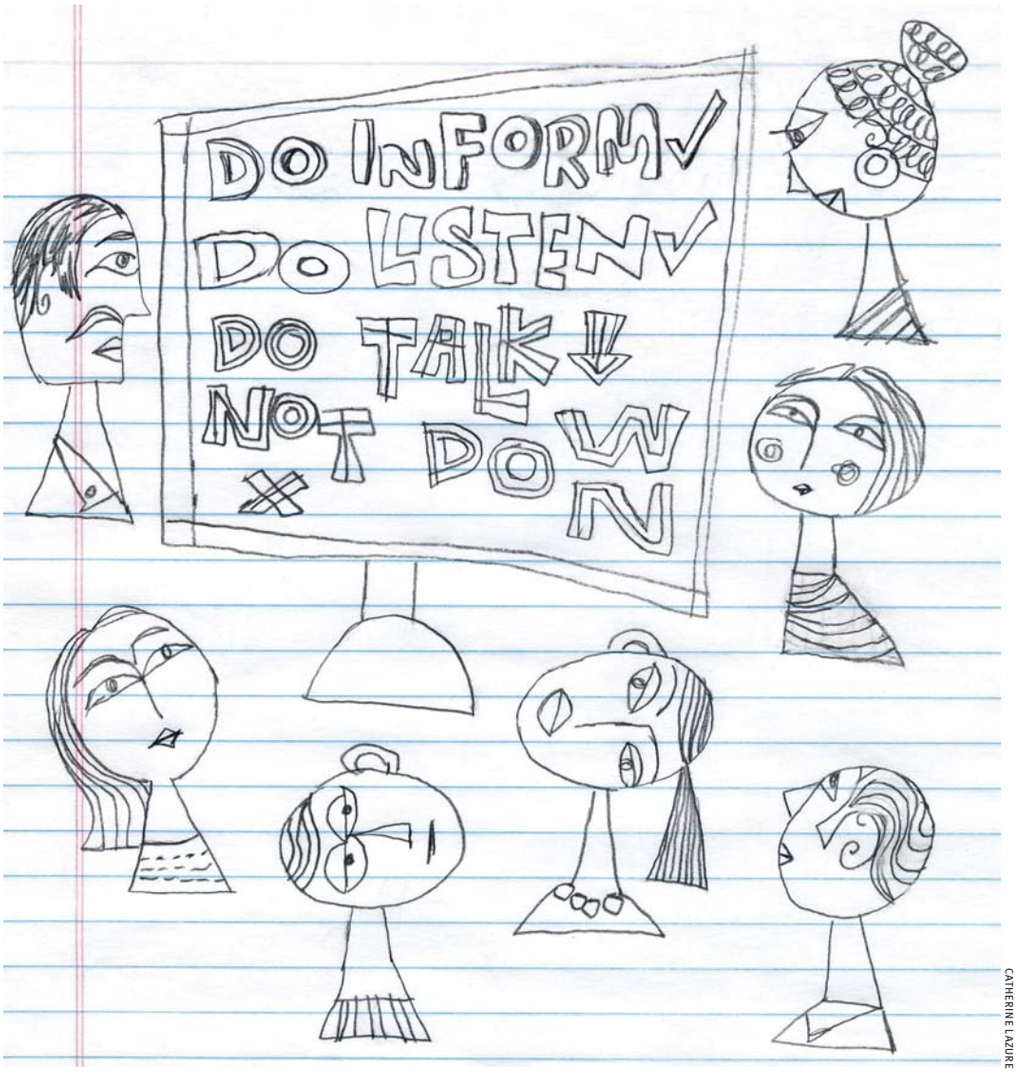
The latest crop of residents sat watching the video. It showed a peer delivering a presentation regarding a patient. The content was fine, medically speaking, but some of the terms the young doc employed could be considered pejorative and judgmental.

"We use this video to show the types of scenarios commonly seen in medical education," says Jamie Johnston, MD professor of medicine in the renal-electrolyte division in the School of Medicine. A postvideo conversation reinforced ideas of professionalism and communication skills in the entering residents of 2008.

The video is one project of Pitt's Academy of Master Educators, which was formed in 2006 and recently announced its new class of 18 faculty members. The academy not only recognizes teaching excellence, Johnston says, it concentrates the teaching experience of faculty members and shares dos and don'ts with the medical school at large through programs like faculty development seminars, mentoring programs, and the new resident orientation mentioned above.

"When I network with my colleagues at other institutions, they're very jealous of what we have," Johnston says.

The newest members of the academy can be found at www.ame.pitt.edu/. *—JM*



CATHERINE LAZURE

FINE FELLOWS

The American Association for the Advancement of Science has asked its members to recognize standouts among their own since 1874. This year, the organization bestowed the honor of fellow status on three professors from the University of Pittsburgh School of Medicine.

The AAAS lauded **Bernie Devlin**, a PhD associate professor of psychiatry and human genetics at Pitt, for his work modeling and analyzing statistical data. His methods for analyzing genetic data have advanced such disparate fields as DNA forensics, genetics of IQ, genetic epidemiology, and cancer biology.

The organization also honored **Herbert Needleman**, an MD professor of psychiatry and pediatrics, and **George Michalopoulos**, an MD/PhD, the Maud L. Menten Professor, and chair of the Department of Pathology.

Michalopoulos is known for his work in liver regeneration. In 1989, his lab identified hepatocyte growth factor, which stimulates liver cell proliferation. (Two other labs independently came across the protein at the same time.)

Needleman's studies, starting in the 1970s, showed that lead exposure in children results in brain damage, made evident by lower IQs and an increase in behavioral problems. His work eventually convinced officials at federal agencies to ban lead from paint and gasoline and lower the blood-lead standard for children. *—Eric Donato*

HONORING TRANSLATORS

Four University of Pittsburgh School of Medicine faculty members now augment the ranks of two groups dedicated to honoring scientists who convert basic science into clinical practice.

Michael Fine, MD professor of medicine and director of the VA Center for Health Equity Research and Promotion, and **Mark Gladwin**, MD and chief of the Division of Pulmonary, Allergy, and Critical Care Medicine and director of the Hemostasis and Vascular Biology Research Institute (see story p. 19), are among the newest members of the Association of American Physicians. Each was nominated by his peers to join the 1,000-member organization. Only 60 physicians are invited to join annually. With the addition of Fine and Gladwin, Pitt boasts 17 AAP members.

David Hackam and **Satdarshan Monga** were recognized by the American Society for Clinical Investigation, which honors standout physician-scientists who are 45 or younger. Hackam is an MD/PhD with appointments in surgery, as well as cell biology and physiology. Monga is an MD associate professor of pathology and medicine. *—JM*



COURTESY CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC

TWINS BECOME TWO

Catherine Nickson was told she couldn't get pregnant again, but then a doctor told her she was. Then he told her she was carrying twins. Then he told her the twins were conjoined. "I thought it was a joke, that someone was playing a trick on me," says Nickson.

Nickson and the twins—Dagian and Danielle Lee—came to Children's Hospital of Pittsburgh of UPMC from their Cleveland home with the hope that doctors here could separate the girls. It would be the first such surgery performed in Pittsburgh. Dagian and Danielle were joined from the sternum to the groin, shared a colon, and had individual, but connected, livers.

On Dec. 13, two days before Dagian and Danielle turned 2, a team of 50 doctors and nurses led by Joseph Losee, MD associate professor of surgery and pediatrics in the School of Medicine and chief of the Division of Pediatric Plastic Surgery at Children's, began a 24-hour operation to separate them. The operation took place after the girls had undergone scores of earlier procedures in preparation. (The girls are shown above—pre-op, with tissue-expanding balloons beneath their skin. Dagian is on the left; Danielle is on the right.)

Two months later, the twins, looking hale and hearty in their Terrible Towel-draped hospital beds, had begun a long period of rehabilitation. And they were looking forward to going home. Nickson said: "We're going to have a big party." *—JM*

Finding Malawi

Canadian-born Gerry Douglas didn't even know where Malawi was back in 1996 when he was assigned to the country as a member of Voluntary Services Overseas (VSO), a UK-based international volunteer organization like the Peace Corps.

Today, Douglas is so devoted to this Southern African nation that he owns a home in Malawi so he can run Baobab Health Partnership, a nonprofit medical informatics organization.

Malawian medical records are in a state of disarray, which is something Douglas first noticed as a VSO volunteer. Paper records were often incomplete or nonexistent or inaccurate. If a new patient had been treated for high blood pressure, diabetes, or HIV, a doctor often wouldn't know it. "It's a total mess," he says.

Douglas, a 46-year-old PhD student in the University of Pittsburgh's Department of Biomedical Informatics, is changing that. A desktop touch-screen workstation appliance he developed lets overworked doctors input medical records. Doctors have used the system to issue identifiers to more than 800,000 patients, and 18,000 received HIV care facilitated by BART, the Baobab Antiretroviral Therapy system.

For his efforts, Douglas received a Technology, Entertainment, Design (TED) fellowship. Douglas is one of 40 innovators selected from a pool of international fellowship applicants. He presented his work on Baobab Health to the fellows group during the TED Conference in Long Beach, Calif., in February.

Michael Becich, chair of biomedical informatics at Pitt, noted in a press release that "TED fellowships are given to the super-brilliant and rising talents across multiple scientific and creative disciplines."

With his wife and Baobab cofounder, Thuy Bui, whom Douglas met in Africa, Douglas is committed to working in Malawi for another 20 years. The couple—Bui is an MD and medical director of Pitt's Program for Health Care to Underserved Populations—brings their 7-year-old son, Ben, to Africa in the summer.

Baobab employs 25 Malawian software developers, technicians, and other support staff. Douglas himself has not yet drawn a paycheck, but he hopes to receive a salary eventually from the organization, which is funded through the Centers for Disease Control and Prevention and other granting organizations. *—CR*