

*Devoted to noteworthy happenings
at the medical school*

We Have a Winner

In 2004, transplant surgeon and scientist Thomas Starzl became the first investigator with a primary appointment at the University of Pittsburgh School of Medicine to earn the National Medal of Science, the highest honor bestowed upon scientists by the federal government.

In late August, Bert O'Malley (BS '53, MD '63) became the first School of Medicine grad to make the list.

O'Malley is chair of molecular and cellular biology at the Baylor College of Medicine in Houston. As Starzl is often called the father of transplantation, O'Malley can lay claim to the title "father of molecular endocrinology." His work has uncovered new insights into the function of hormones in normal development and disease states.

O'Malley says he was a bit surprised when told he'd be visiting the White House in September to receive the National Medal: "One never expects this type of honor in one's career, so my initial reaction was that they might have the wrong person." —*Joe Miksch*



**O'Malley receives the National Medal of Science—and a handshake—
from President Bush.**

FOOTNOTE

Fearlessness is key for a life spent on stage. But so is caring for your voice. Hence, the Healthy High School Musical workshop. Featuring experts from Pitt's Department of Otolaryngology's Voice Center, the eight-hour workshop gave high school theater students and teachers insight into how the vocal folds work, approaching singing when sick, and then some. Didn't seem to give anyone jitters though. "Is anyone else afraid to sing a high C?" a workshop instructor asked the roomful of teens. No hands rose.

UP IN SMOKE

Teens, next time someone offers you a joint, remember this: Epidemiological studies suggest a link between heavy marijuana use by adolescents and later development of schizophrenia.

Recent studies by David Lewis, an MD and the UPMC Endowed Professor in Translational Neuroscience in the University of Pittsburgh School of Medicine, suggest a mechanism for the link. Schizophrenia is associated with impairments in the brain's ability to synthesize GABA, a neurotransmitter that is vital for cognitive processes such as working memory.

The brains of people with schizophrenia compensate for GABA deficiency by decreasing the presence of a cannabinoid receptor (CB1R). When CB1R is highly active, it impairs GABA signaling. Marijuana use activates CB1R; the increased activity, in turn, worsens schizophrenia symptoms and boosts the chances of developing the disease among those predisposed to it.

On the plus side, Lewis says, "The findings provide some rationale for a novel drug that ... may increase functionality in people with schizophrenia." —*JM*



CAMI MESA

A&Q

Mentoring Evolves

Joan Lakoski doesn't deal in romance—but, professionally, she is something of a matchmaker.

The PhD associate vice chancellor for academic career development and professor of pharmacology and chemical biology undertakes the vital work of helping link med students with faculty mentors and junior faculty with senior faculty mentors. She also builds relationships among the many other permutations of mentor and mentee in the University of Pittsburgh School of Medicine.

Mentoring, she says, helps advance careers, build collegial relationships, enhance faculty recruitment, and reduce the stresses of academic life. "Mentoring is a vehicle for ensuring that we have a culture that tries to utilize everyone's strengths," she says.

On the growth of mentoring

We're moving into, as you know, team science. ... These relationships are expanding and growing. Also, careers require tremendous flexibility and resiliency so that you can manage the stresses. Mentoring has really moved from being informally acknowledged to being a formal component of what we do in order to meet the need for better supporting everyone.

On the golden rules of the pairing

It's a relationship that has to be built on trust and mutual respect, and both the mentee and the mentor need to provide a safe environment where they can freely exchange ideas. Confidentiality, trust, and mutual respect are, to me, the golden rules.

On the endgame

Mentoring not only positions the mentee to get a task done—a research project, a manuscript, an R01 [grant]—but also gives us that collegial support we need that affirms us in terms of our inspirations for ourselves, our vision, and encourages us to take risks. ... To me, that's where the exciting parts of science are, where we're seeing these innovations in clinical and translational research. They're at these boundaries.

Her question for us

What are the characteristics of the individual who gave you mentoring advice at a time when it made an impact that still, after all these years, you cherish? —JM

Next Generation

Late in life, it's not unusual to be diagnosed with high blood pressure or arthritis, but an increasing number of older people are also contracting HIV. Keith Stowell (Res '08), the 2008 recipient of the American College of Psychiatrists' Laughlin Fellowship, sees a number of such patients in his geriatric psychiatry fellowship. In his five years at Western Psychiatric Institute and Clinic, Stowell has seen patients in their 60s who were diagnosed with HIV 20 years ago and others who received their diagnosis 20 days ago. Caring for geriatric patients with HIV or substance abuse disorders interests Stowell because of the wide range of general health problems to be considered in their psychiatric treatment. The field is challenging—soon to be more so as baby boomers age—but Stowell aspires to learn more about the geriatric population through his own work and from his interactions with mentors.

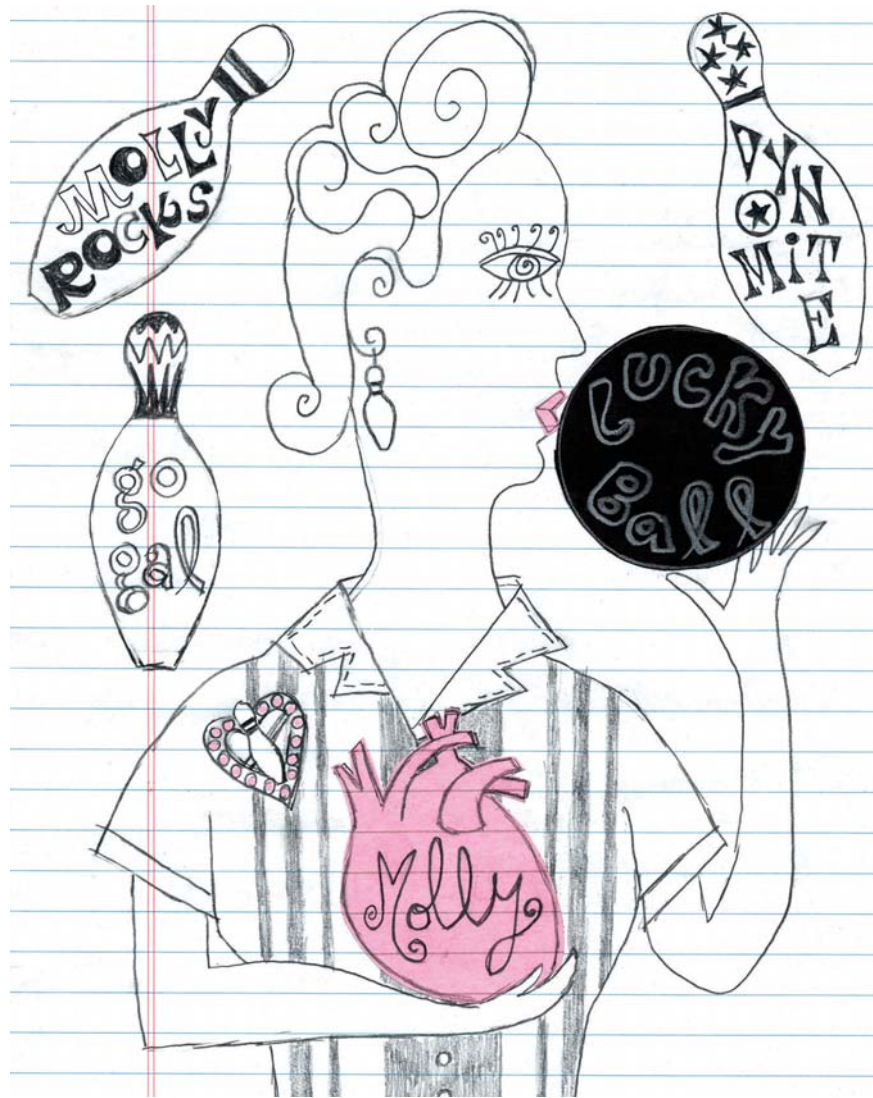
P53 does to mutated DNA what television action hero Jack Bauer does to terrorists. The little protein *Science* dubbed "Molecule of the Year" in 1993 identifies mutations and stops them in their tracks—either repairing their sinister deviations or, if they can't be rehabbed, sending them to their deaths. For years, scientists have known of p53's potential as a tumor suppressor protein but have struggled to use it to its fullest; half of all cancers have mutations in p53 and the other half have functioning p53 that is inhibited by other variables. Drew Dudgeon, a pharmacology and chemical biology postdoctoral fellow, received the 2007 Hartwell Fellowship for scientists in the early stages of their biomedical research careers. Together with his mentor, Allegheny Foundation Professor of Pharmacology and Chemical Biology John Lazo, he is screening compounds that may assist p53 in its mission of tumor suppression. The Hartwell Fellowship will provide Dudgeon with \$100,000 throughout two years for research on p53 enhancement for treatment of childhood leukemia. —Hayley Grgurich

Heart and Soul

When Angeline “Kula” Goughnour awoke after her heart transplant, she found her husband at her side. “You know you rejected it, right?” he asked her. “Yeah, but don’t worry. She won’t give us any more trouble,” Goughnour said. In a few days, it was clear she was right—and the heart came through in more ways than one. After the surgery, she began “talkin’ Southern,” and a new, more forthright side of her personality emerged. Goughnour, a Pennsylvania native, attributed the changes to her new heart—a gift from a 36-year-old woman from Atlanta. “I named her Molly,” she said. “She just feels like a Molly.”

Three weeks shy of the three-year anniversary of her transplant, Kula attended her first Transplant Games at the David Lawrence Convention Center in Pittsburgh as one of 124 local athletes. She competed in the bowling event and, with other conventioners, collected ornamental pins from each of the 32 international teams represented.

A few months after her convalescence, Goughnour wrote to “Molly’s” family, thanking them for her heart. Inside the convention center, her eyes scanned the room. This summer she’d hoped to finally meet Molly’s family at the Games, but understood if it would be too hard for them. “When my dad died in 1986 we donated his corneas,” Goughnour said. “They were transplanted into a blind person, and now she can see. My mom never followed up and contacted the recipient, but after this, I think I will. He had the prettiest blue eyes,” she said smiling. “I could probably pick them out.” —HG



CATHERINE LAZURE

YOUNG PROFS GET A LEG UP

Being a physician-scientist can be a hard row to hoe. The clinic demands time; so does the lab. And the typical physician-scientist doesn’t get her first major National Institutes of Health grant until she is 43.

Yvonne Chan and Allan Tsung (Res ’08), both 35, are a bit ahead of the game, thanks to the Howard Hughes Medical Institute. The two are among 19 recipients of the HHMI’s Physician-Scientist Early Career Award. Each will receive \$375,000 over five years.

Chan, an MD assistant professor of medicine in the Division of Pulmonary, Allergy, and Critical Care Medicine, will study the immune response to chronic lung infections and its role in the permanent damage associated with obstructive lung diseases.

Tsung, an MD assistant professor of surgery in the transplantation and surgical oncology divisions, will study a signaling molecule called HMGB1 released by injured liver cells.

“I want to have a career in both research and clinical practice,” Tsung says. “This [grant] will help me get started with my basic research.”

It will likely yield other career benefits, as well.

“It doesn’t hurt to have the prestige of an HHMI investigator,” says Chan. —JM

Doc, May I Have This Dance?

Nearly 5,500 aspiring physicians wanted to be part of the School of Medicine’s class of 2012—just 149 matriculated. Of them, it’s a pretty reasonable guess that only one danced professionally with the *Bill T. Jones/Arnie Zane Dance Company* in New York.

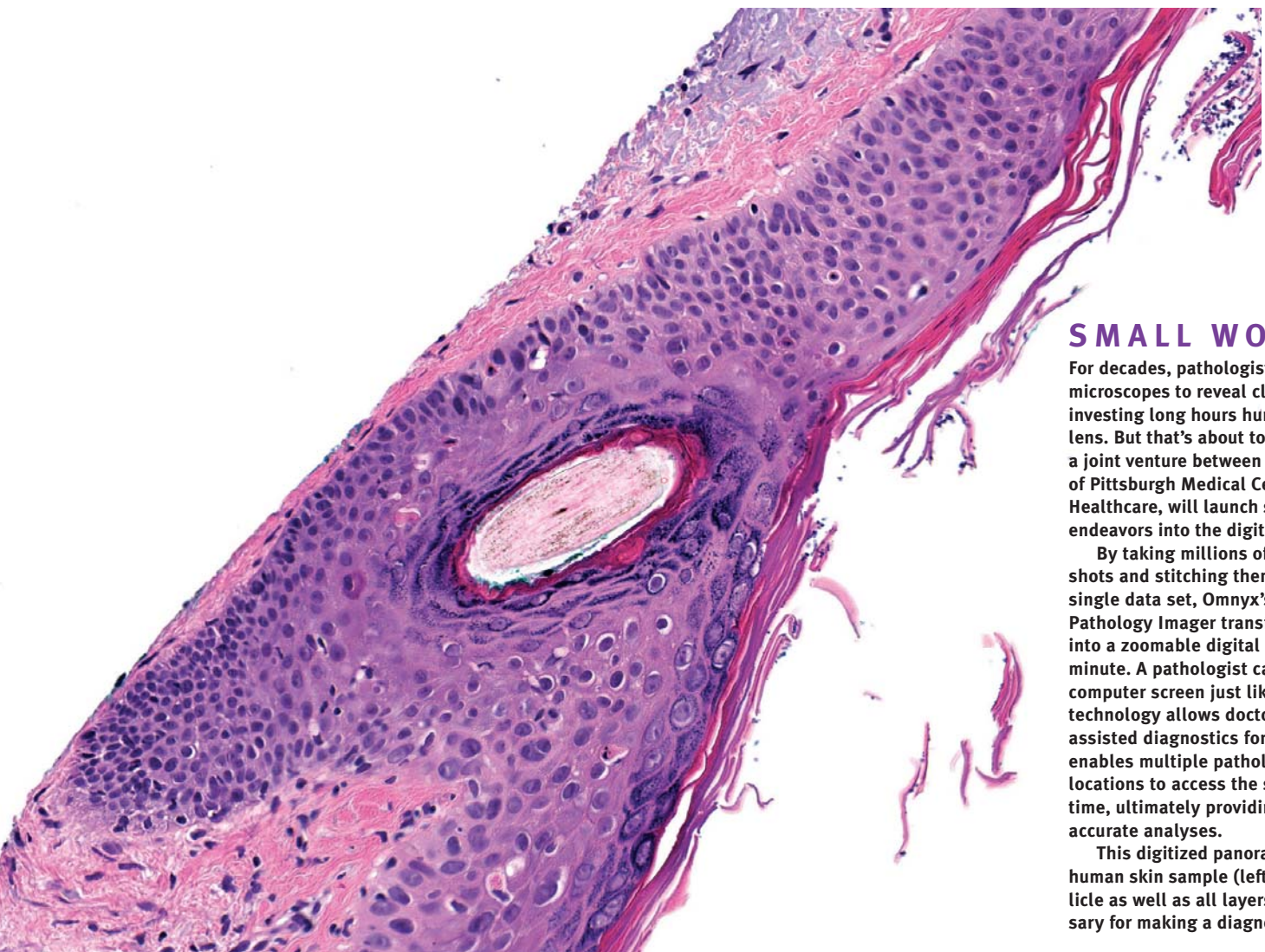
That would be Gaetan Pettigrew, whose mother, Margaret Larkins-Pettigrew (MD ’94, Res ’98), is a Pitt assistant professor of obstetrics and member of the *Pitt Med* editorial advisory board. His father, Chenits Pettigrew, is Pitt’s assistant dean for student affairs and director of diversity programs.

Gaetan Pettigrew is in interesting company. His classmate Alex Singleton is a retired cop. While working in California, he saw the damage that life on the streets can do to young people. Singleton took off his badge and enrolled in a graduate program in psychology. Doing field work, he found that some kids needed psychiatric intervention but had trouble finding psychiatrists interested in taking up the challenge. After talking with his adviser, he decided *he’d* do it.

“So, that’s how I got into medicine,” he said.

Fellow first-year Ajeet Singh Mehta earned his bachelor’s degree from Pitt and was admitted to the School of Medicine under a program that guarantees a spot for stellar high school students who acquit themselves admirably as Pitt undergrads. So did Amar Singh Mehta.

They’re twins. —JM



SMALL WORLD

For decades, pathologists have relied on microscopes to reveal clues to diagnoses, investing long hours hunched over the lens. But that's about to change. Omnyx, a joint venture between the University of Pittsburgh Medical Center and GE Healthcare, will launch such laborious endeavors into the digital age.

By taking millions of individual snapshots and stitching them together in a single data set, Omnyx's Automated Digital Pathology Imager transforms a glass slide into a zoomable digital image in about a minute. A pathologist can then use the computer screen just like a microscope. The technology allows doctors to use computer-assisted diagnostics for detailed tasks and enables multiple pathologists in disparate locations to access the same file in real time, ultimately providing faster and more accurate analyses.

This digitized panoramic view of a human skin sample (left) shows a hair follicle as well as all layers of the skin necessary for making a diagnostic evaluation.

—Sara Goudarzi

Appointments

Bennett Van Houten joins the School of Medicine as the Richard M. Cyert Professor of Molecular Oncology in the Department of Pharmacology and Chemical Biology. He also will direct the University of Pittsburgh Cancer Institute's Molecular and Cell Biology Program.

Van Houten arrived in early September from the National Institute of Environmental Health Sciences, where he held joint appointments in both the intramural and extramural programs. He is an expert in the mechanisms of DNA damage and repair.

Van Houten, who is a five-time National Institutes of Health Award of Merit winner and an NIH Director's Award recipient, says he had been itching to get back into academia. "The opportunity to be part of a strong and vibrant group that studies genome stability and to be given the resources to allow this group to continue to grow over the next five years is a dream come true."

Another recent arrival is **Guillermo Calero**, an MD/PhD who joins the School of Medicine as an assistant professor of structural biology. Calero served as a postdoctoral fellow with 2006 chemistry Nobel laureate Roger Kornberg at Stanford University and made significant contributions to Kornberg's prizewinning studies of the

process by which genetic information from DNA is copied to RNA.

Calero images very large molecular and macromolecular structures, such as transcription complexes. He uses X-ray crystallographic techniques in his imaging work.

Mark Gladwin comes to the University of Pittsburgh as a professor of medicine, chief of the Division of Pulmonary Medicine, and director of the Hemostasis and Vascular Biology Research Institute.

Gladwin, an MD, previously worked at the NIH. His research interest lies in nitrites and how they and other molecules control blood flow and vascular function.

"This is one of the best-funded pulmonary divisions in the country," Gladwin says. "And I'm increasingly convinced it's one of the strongest and most diverse pulmonary divisions in the country, and that's what leveraged me out of the NIH."

The newly created Hemostasis and Vascular Biology Research Institute will study disorders of the blood and blood vessels. It was created with grants from the Institute for Transfusion Medicine and the Hemophilia Center of Western Pennsylvania. —JM



Calero



Gladwin



Van Houten