

Devoted to noteworthy happenings

at the medical school

LUNA TO ADVISE NIH DIRECTOR

Beatriz Luna, a PhD and professor in the Department of Psychiatry who studies the adolescent brain, has been appointed to the Advisory Committee to the Director of the National Institutes of Health. She is the first University of Pittsburgh School of Medicine faculty member to serve in this capacity. Luna will assist in developing policy regarding such issues as the grant application process and conflict of interest.

"They [at the NIH] really want to hear your opinion," Luna says. "Most other members are more senior and more administrative. I think I represent the person in the trenches."

—Joe Miksch



Luna

FOOTNOTE

Alan Russell is six places ahead of Will Ferrell and can see President Barack Obama's back. *Rolling Stone* ranked Russell—a PhD University Professor of Surgery and director of the Pitt-UPMC McGowan Institute for Regenerative Medicine—32nd on its list of "The 100 People Who Are Changing America." Calling him "a medical futurist who is finding ways for the body to rebuild itself," the magazine notes that Russell and others are developing an artificial ovary for women whose ability to have children has been compromised by cancer.

HELLO, MR. PRESIDENT

Gonzalo Torres is the third University of Pittsburgh School of Medicine faculty member to win a Presidential Early Career Award for Scientists and Engineers. He and 99 other PECASE winners will be honored at a White House ceremony noting their achievements. Torres is one of 12 nominated by the National Institutes of Health for the prize.

Torres, a PhD assistant professor of neurobiology, researches the regulation of dopamine in the brain. His efforts to understand the molecular mechanisms of this process, which Torres says turns out to be more complexly organized than anticipated, have implications for the treatment of schizophrenia, Parkinson's, and drug addiction.

"I have to emphasize that this is the work of a group of people," Torres says. "This is a team effort that is being recognized."

The honor, first given in 1996, carries with it up to a five-year grant and represents the highest honor bestowed upon young scientists and engineers by the federal government. J. Peter Rubin, of Pitt's Department of Surgery, won in 2006, and Karl Kandler, of the departments of otolaryngology and neurobiology, in 2000. *–JM*



CAMI MESA

A&Q

David Kupfer: Writing *DSM-V*

It's a job that carries a measure of prestige and is an awful lot of work. Since 2006, David Kupfer has served as chair of the task force charged with revising the venerable *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*), the bible of psychiatry. The process involves hundreds of experts, reams of research, and some politics.

Kupfer, an MD and the Thomas Detre Professor and chair of the Department of Psychiatry at the University of Pittsburgh School of Medicine, as well as director of research at Western Psychiatric Institute and Clinic of UPMC, says the new edition ought to be ready for publication in 2011, 17 years after the *DSM-IV* was released. Kupfer talks about the weight of making the *DSM-V* a reality.

On managing outside pressure

There are a variety of influences—ones that have to do with commercial interests and could be represented by pharmacology companies, insurance companies, device makers—but they may also be represented by advocacy groups for certain kinds of disorders.

We've gone out of our way to have a higher standard of transparency and insist that [task force and work group members] are free of any undue involvement with commercial interests. All members are limited to $10,000 in annual income from *all* commercial interests.

On changes in the field

The use of imaging [fMRI, CT scans, etc.] has become more prominent in psychiatry. I don't know how much of this work will pass muster for this edition, how much is ready for prime time. We're also thinking about disorders as having a continuum. Under the current criteria, once you turn 18, you can no longer have ADD (attention deficit disorder), and we know that's not truly the case.

On changes to the *DSM* itself

The *DSM* is revised once every 20 years or so. We're setting up a [computer-based] system that will allow findings that might hit a threshold of replicability to be put into the *DSM* between revisions. This won't happen often, but we want to make it a living document.

His question for us

What kind of feedback would you give to help us make the *DSM* more friendly and useful to clinicians and their patients? *Send responses to medmag@pitt.edu* —*Interview by Joe Miksch*

Faculty Snapshots

Gwendolyn Sowa is the Association of Academic Physiatrists' 2009 Young Academician. The MD/PhD assistant professor of physical medicine and rehabilitation studies spine degeneration and the mechanisms of back pain at the molecular level.

She hopes to find a biomarker that can tell doctors when exercise is facilitating physical repair of back injuries.



Sowa

Merrill Egorin received the 2009 American Society of Clinical Oncology Translational Research Professorship for his efforts to improve cancer treatments and his support for the next generation of researchers. Egorin is an MD professor of medicine and of pharmacology and chemical biology and a member of the University of Pittsburgh Cancer Institute. He is also one of five Pitt faculty members who recently joined the august ranks of the Association of American Physicians, which honors investigators who convert basic science into clinical practice.



Egorin

With colleagues in the Division of General Academic Pediatrics at Children's Hospital of Pittsburgh of UPMC, Alejandro Hoberman finds ways to help doctors become better at what they do. Hoberman is chief of the division, and he and his faculty set a goal eight years ago to build on their strong clinical and research foundations to create an exceptional teaching program with particular emphasis on developing tools for physicians of all experience levels. The Academic Pediatric Association thinks they've been doing an excellent job; the organization bestowed its 2009 Outstanding Teaching Award on the division. Hoberman, an MD professor of pediatrics in the School of Medicine and Jack L. Paradise Professor of Pediatric Research, says that the program has thrived because of faculty investment in curriculum development and inspiration from early mentors. Of particular note, Hoberman says, is ePROM (enhancing Proficiency in Otitis Media), which is sponsored by the Centers for Disease Control and Prevention and is used in pediatric hospitals throughout the world. —*JM*



Hoberman

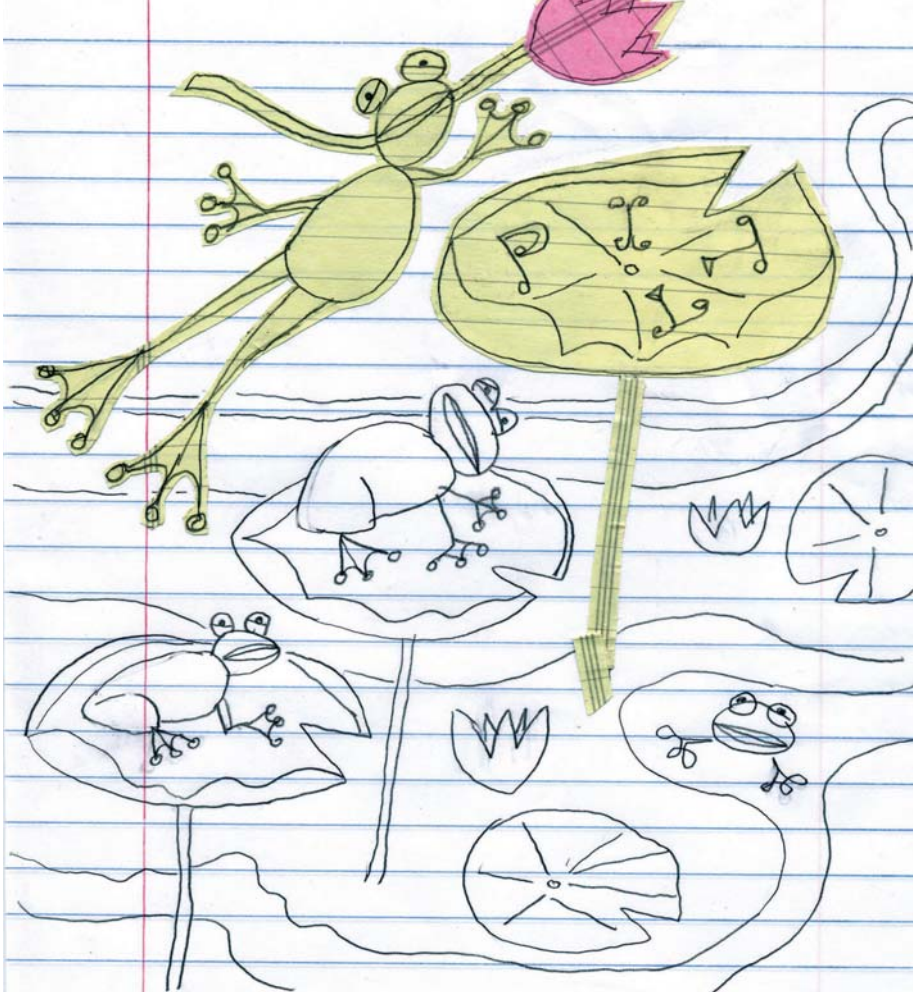
Movin' on Up

The preliminary fiscal year 2008 numbers are in, and the University of Pittsburgh and its affiliates appear to have ascended to fifth in National Institutes of Health funding.

Arthur S. Levine, senior vice chancellor for the health sciences and dean of the School of Medicine, suggests that the approximately $440,761,000 in grants is a reflection of the University taking the right tack when it comes to prioritizing research.

"We've built a lot of basic science [space] over the last decade," he says. "We've made good decisions when it comes to recruiting the right people to fill that space, and we've paid attention to the types of research we've chosen to pursue."

Levine also considers the high ranking an indication of the overall quality of the School of Medicine. "If you're ranked that high, you must be a sophisticated, intelligent, and creative institution and therefore attract good students, good teachers, and provide good patient care." *—JM*



CATHERINE LAZURE



SCIENCE PHOTO RESEARCHERS

Less Pain, More Gain

A new bone marrow transplant regimen, initiated by Lakshmanan Krishnamurti at the University of Pittsburgh, has the potential to make the cure for sickle cell anemia a much easier road to travel.

Most sickle cell patients don't live past their 40s. The hereditary disorder—in which red blood cells are misshapen (see above) and can clump in blood vessels, leading to pain, organ damage, high blood pressure, and stroke—affects 70,000 in the United States, most of whom are African American.

Bone marrow transplantation, which results in the generation of new, healthy red blood cells, has been used to cure the disease since the early 1980s. However, the radiation and chemotherapy used to prep patients for transplant make the procedure an unattractive option to many.

Krishnamurti, a Pitt MD associate professor of pediatrics and director of the Comprehensive Hemoglobinopathy Program at Children's Hospital of Pittsburgh of UPMC, has found that reducing doses of radiation and chemo makes the process more tolerable for patients—and equally, if not more, effective.

In a recent clinical trial, all seven patients were cured of sickle cell. Krishnamurti also found that because the patients' bone marrow was not obliterated by high doses of chemo and radiation, their own white blood cells mingled with those of the donors, giving them an advantage in fighting infection. *—JM*

MEN RESPOND DIFFERENTLY TO INFECTION

Women live five to seven years longer than men. After examining how men and women respond to infection, the University of Pittsburgh's Derek Angus has found another factor that might help explain the disparity.

Angus, an MD/MPH who is chair of Pitt's Department of Critical Care Medicine, and his team collaborated with 28 hospitals nationwide to monitor 2,320 patients with pneumonia. Twenty-one percent of men died within one year after hospitalization compared to 16 percent of women, a difference not explained by demographics, chronic health conditions, health behavior, or quality of care. Men responded to infection with higher levels of inflammatory and coagulatory molecules in their blood, which may have contributed to sepsis and death.

The study is one of the largest to examine sex differences in infection response and hints at a future where gender may influence how infection gets treated, says Sachin Yende, an MD assistant professor of critical care medicine and corresponding author of the study, published in the May issue of *Critical Care Medicine*. *—Brandon Ellis*



FRANK HARRIS

PITTSBURGH TO KENYA, BY FOOT

It's 7,000 miles from Pittsburgh to Kenya, but Pitt med students have done an admirable job of bridging the gap.

In 2002, a group of Pitt med students spent several weeks working on a malaria research project in Kenya, where they encountered children and families devastated by HIV/AIDS. Individuals and informal community groups with little outside support helped these children. Back in Pittsburgh, the students created the Kenya Pediatric HIV Project (KPHP) and have since raised more than $40,000 for the cause.

Jackie Ryan (Class of 2010) conducted research for her scholarly project in Kenya in 2007. There, she got to know a woman running an orphanage outside of the small town of Kilifi. The woman and her husband had children of their own but had somehow become the caretakers of boys and girls whose parents had died of AIDS. Some two-dozen of these children slept together on the floor of a one-room building that was also their school. With Ryan's help and a donation from KPHP, this spontaneous orphanage was able to purchase bunk beds, bedding, school uniforms, and shoes.

The fundraising continues. On April 4, KPHP held its annual 10K and 5K race in Pittsburgh's South Park. By partnering with Pitt's Student Leaders in International Medicine, KPHP made this year's event the biggest ever, attracting 600 runners and raising more than $5,000 for Kenyan children. *—Chuck Staresinic*

Appointments

Rocky Tuan envisions a day in which cell biology and engineering merge and allow doctors to help patients regenerate cartilage, tendons, ligaments, peripheral nerves, and bone.

Getting to that point merely requires a complete understanding of the body's innate healing process, the molecular signals that tell cells what to do, the workings of cellular growth factors, and on and on and on, he says with a laugh.



Tuan



Kensler

Tuan will attempt to take medicine further toward his vision as founding director of the University of Pittsburgh School of Medicine's Center for Cellular and Molecular Engineering and as a professor of orthopaedic surgery. The PhD investigator comes to Pitt from the National Institute of Arthritis and Musculoskeletal and Skin Diseases, where he served as chief of the cartilage biology and orthopaedics branch.

"I want to create a forum where all in the University community who think along these paths can collaborate to restore function to damaged and injured tissue," he says. Tuan is the husband of Cecilia Lo, who came to the school this summer to serve as the founding chair of the Department of Developmental Biology. (See our Summer 2009 issue for more on her appointment.)

Thomas Kensler will join the School of Medicine faculty this winter as a professor of pharmacology and chemical biology. Formerly of Johns Hopkins University Bloomberg School of Public Health, Kensler will continue to pursue research into the biochemical and molecular mechanisms of cancer.

Of particular interest to Kensler, a PhD, is a rare liver cancer caused by aflatoxin, a fungus-produced carcinogen that acts in concert with hepatitis B virus. In his research, Kensler has found signaling pathways that, when activated, seem to enhance resistance to aflatoxin and other environmental carcinogens and are targets for preventative therapies.

Kensler will hold a joint appointment in environmental and occupational health in Pitt's Graduate School of Public Health. He is married to Nancy Davidson, newly appointed director of the University of Pittsburgh Cancer Institute (whom we wrote about in our Spring 2009 issue). *—JM*