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

Love in Springtime?

Pitt researchers have discovered that women who conceive in springtime are at a higher risk of delivering children prematurely. Women conceiving in summer have the lowest rate of preterm birth at 8.4 percent, with rates increasing steadily through the seasons and peaking in spring at 9.2 percent.

Lisa Bodnar and Hyagriv Simhan observed the spike when examining data from about 85,000 deliveries at Magee-Women’s Hospital of UPMC. Bodnar is a PhD assistant professor of epidemiology, of psychiatry, and of obstetrics, gynecology, and reproductive sciences. Simhan is an MD assistant professor of obstetrics, gynecology, and reproductive sciences.

The researchers say that the reasons for the spring spike are unknown but could be attributed to factors such as environmental allergens, dietary changes, and viral infections. Couples needn’t shy away from trying to conceive children in the spring, say Bodnar and Simhan. They see their study as a guidepost for future research into the roots of preterm birth, one of the most common complications of pregnancy. —Joe Miksch

FOOTNOTE

Stephen Esper (MD ’07) recently strutted about in a bathing suit and Godzilla mask, then stomped on a sand castle. Esper was named winner of this year’s inaugural Mr. Pitt Med pageant, a benefit for the Kenyan Pediatric HIV Project. The student’s angry lizard act (part of the swimsuit competition)—along with his fiddle performance and Chewbacca impression—netted him the title.

PANCREATIC CANCER’S GENETIC HELPER

The University of Pittsburgh’s David Whitcomb and a team of researchers are digging down to the root causes of pancreatic cancer, an aggressive and migratory killer. The group recently discovered a gene, palladin, linked to increased susceptibility for the form of the cancer that runs in families.

And by studying the genetic makeup of one family especially vulnerable to pancreatic cancer, Whitcomb has pinned down where the palladin mutation is located: chromosome 4q32-34.

Palladin is responsible for maintaining cell shape and function, says Whitcomb, an MD/PhD professor of medicine, of cell biology and physiology, and of human genetics. When palladin malfunctions, pancreatic cells morph. They behave like amoebas, as Whitcomb puts it, crawling away and allowing the cancer to spread rapidly.

These findings will help scientists develop a test to identify people likely to develop pancreatic cancer. Earlier detection will allow for earlier intervention in the form of laparoscopic surgery and other therapies. —JM
Observing the way a patient sits, talks, or stares is an important skill for a doctor. So how do you teach medical students to read other people? Maybe study a discipline whose practitioners look at people all day long.

That’s exactly what Dean Arthur S. Levine (above) wants Pitt med students to do. He’s the driving force behind a collaboration between the School of Medicine and The Carnegie Museums of Pittsburgh’s art programs, including its Museum of Art, where Marilyn Russell (shown left) serves as curator of education, and The Andy Warhol Museum, where Jessica Gogan (shown right) is assistant director for education and interpretation. Students will study Carnegie collections to learn how artists see their subjects. It’s an idea that has caught on at a few other medical schools as well.

On what doctors need to know that artists can teach them

Levine: When we see how a portrait artist visualizes another human being, we have a great deal to learn about diagnostic acuity. If I look at the portrait of King George by Velázquez or a portrait of the Madonna by Picasso, we begin to think about what the artist was seeing in that person, and what that person was feeling and thinking and perhaps articulating in ways that have common ground with how a patient and a physician interact.

How looking at art improves one’s ability to practice medicine

Russell: I think they’re natural partners. Developing an interpretation of a work of art or finding personal meaning in it demands careful looking at exactly what the artist has provided. Viewers must consider not only the subject matter depicted, but even more importantly, subtle elements such as quality of brushstroke in a painting, body language and facial expression in figurative works, and the relationship and placement of objects within a composition. The context in which one experiences a work of art as well as prior knowledge can also affect what one takes away from the process of looking. It’s easy to see how these would be important factors in the medical profession.

A question for us

Levine: Has a particular painting or artist caused you to view patients differently?  
—Interview by Reid R. Frazier

Pitt geriatric psychiatry fellow Alexandre Dombrovski studies late-life depression, and his early work is making a mark. He recently won the American Association for Geriatric Psychiatry’s Member-in-Training Research Award for a paper studying the efficacy of drugs and psychotherapy in elderly people who suffer from depression.

The study, to be published in the Journal of the American Geriatrics Society, found that depressed patients taking the antidepressant drug paroxetine reported better long-term social and emotional role functioning than those on placebo. The work was funded by the National Institute of Mental Health and the John A. Hartford Foundation.

Giorgio Raimondi won The Transplantation Society’s research training fellowship—one of four research fellowships parceled out by the society in 2006. The PhD is a research associate in Professor Angus Thompson’s lab at the Thomas E. Starzl Transplantation Institute. Working with mouse models, Raimondi tries to induce tolerance by isolating T-cells, treating them in vitro so that they recognize a transplanted organ as “self,” and reintroducing them into the mice.

“This area has been pretty hot for the past five years,” Raimondi said. “I really want to help create a robust state of tolerance, an acceptance of the organ” that would reduce or eliminate the need for immunosuppressive drugs.  —JM
Rickets is usually associated with developing countries. In North America, first with the aid of cod liver oil supplements, then ultraviolet lamps and vitamin D–enriched milk, the bone-softening disease found in children was all but eradicated by the 1930s.

Kumaravel Rajakumar, assistant professor of pediatrics at Pitt, has found evidence that leads him to believe it might be on the rise here again. Half of the African American Pittsburgh-area children he studied (a sample of 42 between the ages of 6 and 10) were vitamin D deficient. If years go by without children getting enough of the vitamin, they can develop rickets.

“Rickets is back in North America in waves,” Rajakumar says, even in sunny regions. Though rickets is not a disease physicians are required to report to health authorities, small studies like his own have brought Rajakumar to this conclusion.

“People with darker skin are more susceptible, needing up to six times the amount of sunlight required to generate an adequate supply of vitamin D in a light-skinned person. People in general aren’t getting enough sunlight, mothers are depleted of vitamin D [through breast-feeding], and children don’t get enough of it in breast milk and develop rickets,” says Rajakumar.

Children and breast-feeding mothers should get more sunlight and consume more vitamin D–rich foods like fortified milk and other dairy products, he says. Vitamin D deficiency can also make one more susceptible to prostate cancer, multiple sclerosis, breast cancer, and diabetes.

Rajakumar received National Institutes of Health funding to monitor vitamin D levels in light- and dark-skinned children. —JM

Our modern indoor lifestyles could be contributing to a reemergence of rickets.

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Sweets and Stress

A few years ago, the University of Pittsburgh’s Janet Amico noticed how women she saw as patients were responding to stress and anxiety. She’d sometimes hear them talking about grabbing sweets or carbs to alleviate stress. Men, however, never seemed to talk about that.

Since then, Amico, an MD professor of medicine and of pharmaceutical sciences, and Regis Vollmer, a PhD professor of pharmaceutical sciences, have shown that oxytocin, a hormone associated with maternal bonding as well as dampening the blow of stress and anxiety, could have a role in keeping us from grabbing another slice of pie. The researchers monitored the feeding behaviors of a colony of normal mice and another of genetically engineered mice without the hormone. When the researchers augmented the animals’ water with sugar, the oxytocin-deficient mice went on a binge, consuming four to five times as much water as they normally would. They also overdid it with carbohydrate-enriched water.

Amico and colleagues have also identified more anxiety and greater stress responses in female, but not male, oxytocin-deficient mice versus normal mice. She has broadened her studies to explore whether the enhanced consumption of sugar and carbohydrate solutions and greater responses to stress and anxiety are somehow related.

“It’s still early to speculate,” says Amico, about the hormone’s role in humans, but the research suggests that some people’s inability to say no to dessert could stem from an oxytocin problem. —Erica Lloyd

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IS RICKETS ON ITS WAY BACK?

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PHOTO RESEARCHERS, INC.
Appointments

**Thomas Gleason**, an expert in aortic surgery, has joined Pitt. The cardiac surgeon’s proficiency runs the gamut from the mending of aortic aneurysms to the repair of aortic and mitral valves.

Gleason, an MD, comes to Pitt from Northwestern University’s Feinberg School of Medicine in Chicago. Here, he has become the director of the Center for Thoracic Aortic Disease at the UPMC Heart, Lung, and Esophageal Surgery Institute. He serves as associate professor of cardiac surgery in the School of Medicine.

In addition to assuming his surgical responsibilities, Gleason will oversee clinical and translational research aimed at treating those with thoracic, aortic, and valve-related diseases.

In many cases, asthma is a nuisance, making people reliant on inhalers or oral medication so that they can breathe freely. In other instances, asthma can be debilitating. New Pitt med recruit **Sally Wenzel** focuses on the latter cases.

Formerly a professor of medicine at the National Jewish Medical and Research Center at the University of Colorado Health Sciences Center in Denver, the MD plans to continue to develop treatments for severe asthma at Pitt. Here, she’ll hold the positions of professor of medicine in the Pulmonary, Allergy, and Critical Care Division and director of its Asthma, Allergy, and Airway Research Center. Wenzel explores genetic factors contributing to severe asthma. She also hopes to further delineate the physiological differences that separate severe asthmatics from those with mild and moderate cases.

While at the Cleveland Clinic, obstetrician **Stephen Emery** was among the first to perform a procedure that used a needle and balloon catheter to penetrate a mother’s uterus and restore blood flow in a fetal heart. Left untreated, the defect prevents organ growth and can necessitate a heart transplant. Since coming to Pitt, Emery has taught the technique to physicians here and says they are ready to perform it in Pittsburgh.

Emery joins the Pitt faculty after serving as cofounder and codirector of the Fetal Care Center at the Cleveland Clinic and assistant professor at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University.

At Pitt, Emery serves as assistant professor of obstetrics, gynecology, and reproductive sciences. He is pulling together a multidisciplinary team of surgeons, radiologists, and other specialists to join Magee-Womens Hospital of UPMC’s Center for Fetal Medicine, which he leads. He plans to develop a comprehensive program for fetal intervention. —JM

**EARLY SIGNS**

As Robert Rogers sat on his porch preparing to give a class on saline lung flushing, his 11-year-old son approached him and asked:

“What are you doing?”

“Preparing a lecture on lung washing,” Rogers said.

The boy disappeared; a half-hour later, he handed his dad a drawing.

“My Dad The Lungwasher” (sic) was the first editorial cartoon by Robert “Rob” Rogers, on staff at the Pittsburgh Post-Gazette since 1993; his work is now syndicated nationwide.

When Rob Rogers started his professional cartooning career in 1984 at the Pittsburgh Press, his family often served as muse and model. In the meantime, his father, a Pitt professor of medicine since the early ’80s, founded the department’s Pulmonary, Allergy, and Critical Care Division, as well as the clinical pulmonary physiology lab at UPMC Presbyterian. Artistry runs in the family: The elder Rogers paints. —Meghan Holohan