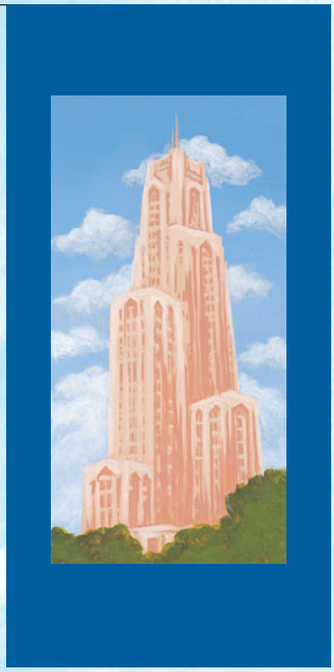


CLASS NOTES

'90s

During his residency, **David Rosenberg** (General Psychiatry Resident '92, Child Psychiatry Fellow '92) wanted to learn as much as he could about treating psychiatric disorders in youth: "I asked one of my attendings what textbook he would recommend I use to learn more about pediatric psychopharmacology. He told me there was no textbook." Rosenberg's response? Write his own. In 1994, Rosenberg, with **John Holttum** (Child Psychiatry Resident '94) and faculty mentor Samuel Gershon, now Pitt emeritus professor of psychiatry, published *Pharmacotherapy for Child and Adolescent Psychiatric Disorders*, which is still used by pediatric health professionals today (the third edition was published in March). Rosenberg, now chief of psychiatry and psychology at the Children's Hospital of Michigan and professor of psychiatry and behavioral neurosciences at Wayne State University, studies the genetics of children with depression and obsessive compulsive disorder.

A specialist in both minimally invasive spine surgery and advanced scoliosis, **Hooman Melamed** (MD '99) treats some of the best- and worst-case spinal scenarios. With the Scoliosis Research Society's Global Outreach Program, he has traveled to Colombia, where he says scoliosis in kids is often overlooked. Melamed, now spine consultant at Shriners Hospitals for Children in Los Angeles, describes seeing "horrible conditions" in teenage patients who should have been treated as toddlers. Both at home and abroad, the surgeon performs complex osteotomies, where the spine is broken and reset. Conversely, much of his California-based practice at DISC Sports and Spine Center treats less-severe disorders using minimally invasive techniques. "People are shocked when they find out you can have spine surgery as an outpatient and go home a few hours later."

'00s

When **Benjamin Davies** (Surgery Resident '02, Urology Resident '05) learned he could remove a kidney using one incision instead of three, he thought it was "crazy." The technique, called a laparoendoscopic single-site (LESS) surgery, requires Davies to manipulate traditional tools with his hands crossed. "It's not something that comes intuitively. … It just takes a little getting used to," says Davies, assistant professor of urology at Pitt. The surgery, which is often used to remove healthy kidneys for donation, is now being used by Davies to remove kidney tumors. Davies, a urologic cancer specialist, knew it wouldn't be an option for most of his kidney patients—because only small tumors would fit through a single site—but he wanted to offer it to those who qualified. This March he performed the first single-site kidney tumor removal in Southwestern Pennsylvaia. He calls LESS surgery a "boutique" part of his practice but predicts it'll become more common once robotic tools, currently in experimental stages, are approved.

Compared to traditional means of radiation therapy, the robotic CyberKnife system is extremely precise: It delivers multiple, pinpoint, high-dose beams of radiation with submillimeter accuracy. "This allows us to focus radiation doses more precisely so that critical structures surrounding the problem remain unaffected," says **Sarahgene Gillianne DeFoe** (MD '06, Intern '07, Radiation Oncology Resident '11). DeFoe trained extensively on the technique during her residency at Pitt, and in November she joined the Cape Fear Valley Health System in North Carolina to jumpstart a CyberKnife program there. DeFoe recently conducted a study demonstrating CyberKnife's efficacy in treating rectal cancer. She also specializes in treating patients with cancers of the breast, brain, and lung.

In 2010, cleanup crews and animal welfare experts scrambled to prevent massive ecological damage after the BP Deepwater Horizon oil spill. And in the midst of



DeFoe starts a CyberKnife program in Fayetteville, N.C.

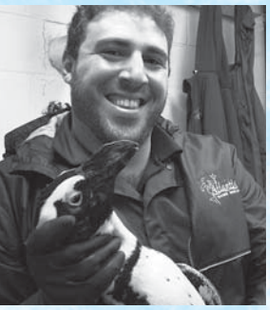
LIVE WITH NANCY SNYDERMAN

Doctors' offices are full of devices and instruments particular to each specialty, but they don't typically include a microphone and professional camera crew. As chief medical editor for NBC News, Nancy Snyderman (Pediatrics Resident '79, Otolaryngology Resident '83) regularly discusses health-related issues on *Today* and produces medical reports for programs like *Dateline NBC*, *NBC Nightly News,* and *Rock Center with Brian Williams*. Though her roles as physician and journalist may seem worlds apart, Snyderman says that she's a "perpetual student" in both positions. And she notes that her approach to communicating difficult scientific and medical concepts to patients and viewers is always the same: "My job is to take [complex medical] information and present it in a way that isn't condescending to people."

Snyderman's television appearances broadcast her medical expertise to millions; yet she doesn't believe that her views have more weight. "I don't think my opinion matters any more than [that of] someone's personal physician," she says. "As a journalist, I'm not necessarily supposed to have an opinion anyway."

In 2011, Snyderman received the School of Medicine's William S. McEllroy Award, which honors a resident alumnus each year. She was also awarded the Albert C. Muse Prize for Excellence in Otolaryngology from the Eye and Ear

COURTESY SNYDERMAN



Lustgarten with a penguin

chaos, they relied on an outdated, paper-based recording system to track the species affected and tag animals. That got **Jonathan Lustgarten** (Biomedical Informatics MS '06, PhD '09) thinking: Why would veterinarians rely on a system that's unreliable, easily damaged, and almost impossible to share long distance? Last year, he thought about developing a software solution, and he won the $100,000 Student Inspiration Award from the University of Pennsylvania, where he is a veterinary medicine student, to do so. Lustgarten says, "The software will help veterinarians and researchers manage information and provide the best care to animals in a variety of disasters and beyond."

'10s

It's not surprising that, as a family medicine doctor and Pitt associate professor of medicine and pediatrics, **Brian Primack** (Clinical and Translational Science PhD '11) is concerned about tobacco propaganda. But what he found in a recent study is surprising: In the *American Journal of Preventive Medicine*, Primack reported that of the hookah tobacco Web sites his team surveyed, more than half didn't include the word "tobacco." "We expected that hookah Web sites might de-emphasize tobacco, but we did not expect that many would leave out the word altogether," says Primack, who notes that none of the sites required age verification and less than 1 percent included a tobacco-related warning. Hookah tobacco, which comes in a variety of fruity flavors, is often wrongly perceived as less harmful; but Primack says studies show it exposes users to large amounts of tar, nicotine, and carbon monoxide.

—Jenelle Pifer and Shermi Sivaji

THE WAY WE ARE

CLASS OF '02

In the winter before their graduating year, pianist **Mark Lazarev** (MD '02, Gastroenterology, Hepatology, and Nutrition Fellow '08) and violinist **Amanda Pong** (MD '02) took the stage to perform a sonata movement by Sergei Prokofiev in the School of Medicine's annual talent show. He'd decided to study medicine after years of studying classical piano in the Oberlin College Conservatory of Music. The talent show was, for him, a night of personal transition. "[Music] was definitely something I was doing seriously," he recalls from his office at Johns Hopkins University, where he is now assistant professor of medicine. But his overriding interest in science (he also studied neuroscience as an undergrad at Oberlin) led him to pursue a path where he could "really really help people." Now, he focuses his research on inflammatory bowel disease, specifically Crohn's disease and ulcerative colitis. Because inflammatory bowel disease usually develops early, in the teens or 20s, there's a real opportunity to improve quality of life over the long term, he says.

Suzanne Atkinson (MD '02) remembers hearing Lazarev play. "He was excellent. … He really had a depth to his personality that went beyond the typical stereotype of a med student," she says. But atypical students were the norm at Pitt, it seemed to Atkinson. She herself turned to medicine after years spent teaching and practicing wilderness sports. During a mountaineering expedition in Mexico, she met **Jim Withers** (MD '84), a UPMC internist who inspired her to study medicine. Withers, who founded Operation Safety Net to bring medical care to people living on Pittsburgh's streets, taught Atkinson that physicians could practice medicine in uncommon ways. "I saw … the way that medicine can allow someone to communicate with another human in a way that otherwise wasn't possible," she says. Now a clinical instructor of emergency medicine at Pitt, Atkinson serves as a medical command physician with STAT MedEvac and also trains triathletes (she is a triathlete herself). "In both activities, you really need to have a connection with the human being," she says, "In the emergency room, it has to happen in a very compressed amount of time."

Bill Hobbs (Molecular Virology and Microbiology PhD '00, MD '02) performed at the talent show the same year as Lazarev. His band—which cycled through a number of names, including Fatt Man and Billy Hobbs Band—played "loud and obnoxious rock and roll," Hobbs says from his lab at the Puget Sound Blood Center in Seattle. There, he studies adult sickle cell disease, an interest he developed at Pitt while shadowing Timothy Carlos, then director of the school's Adult Sickle Cell Program. These days, Hobbs' research investigates a particular plasma protein (von Willebrand factor). "People who don't have enough [of the protein] have bleeding disorders, but we think people with sickle cell disease have too much," says Hobbs, who is also acting assistant professor of medicine in the Hematology Division at the University of Washington.

"It was a stressful time," Hobbs says of the MD/PhD program. The students still crammed in trips to Oakland bars and restaurants, but they'd study "before, during, and after." **Ilan Kerman** (Neuroscience PhD '99, MD '02) says that about sums it up. During his time at Pitt, Kerman explored how the brain maintains a stable internal environment, research he's now building on as assistant professor of psychiatry and behavioral neurobiology at the University of Alabama at Birmingham. Specifically, he's looking into the causes of the physical symptoms associated with depression. "There is a significant medical comorbidity with depression, including heart disease and diabetes. But in terms of causes, we don't really know," he says. *—JP*



Snyderman in Haiti

Institute and Foundation for her significant contributions to the medical field. "I was blown away by receiving those awards," she says. "I owe Pittsburgh so much. I started my journalism career there, and I've stayed very close to Pittsburgh and my mentors there." (Snyderman is also a clinical associate professor of otorhinolaryngology at the University of Pennsylvania.)

Snyderman spoke at the School of Medicine's graduation ceremony this May, stressing that it's important for new physicians to focus on the compassionate fundamentals of patient care. "A lot of it is getting back to basics," she says. "There is a basic need for humanity in medicine and science. And there is nothing more important than the human touch." *—Dennis Funk*

ACHIEL L. BLEYAERT

JUNE 23, 1931–OCT. 30, 2011



Bleyaert

In the 1970s, Achiel Bleyaert investigated brain function and ischemia after resuscitation at the International Resuscitation Research Institute, now the Safar Center for Resuscitation Research in the University of Pittsburgh School of Medicine. His animal studies showed that barbiturates after cardiac arrest protected the brain, says Ake Grenvik, an early colleague of Bleyaert's and physician at UPMC from 1968 to 2009. Though the findings could not be confirmed in repeated studies and the treatment was not as successful in humans, says Grenvik, "It was a big step—an important step—in research toward brain improvement after cardiac arrest and resuscitation." Bleyaert's initial inquiries sparked decades of research in this area, Grenvik adds, which eventually led to the current practice of using hypothermia to protect the brain from damage after cardiac arrest.

Bleyaert, a Pitt professor of anesthesiology and critical care medicine from 1980 to 1985, died in October at Clearfield Hospital, in Clearfield, Pa., where he had been a staff anesthesiologist since 1992. He was 80.

Grenvik remembers Bleyaert as an intelligent man who was easy to get along with. Though quiet, he was a diligent worker and a positive mentor. "He was a good teacher in the operating room for anesthesia residents and medical students." *—Dennis Funk*

JAMES SHAVER

JAN. 21, 1935–APRIL 13, 2012



Shaver

James Shaver, director of the Division of Cardiology in Pitt's School of Medicine for more than two decades and mentor to many, died in April.

In the 1960s, Shaver opened and directed the first cardiac catheterization laboratory at what was then Presbyterian University Hospital. His clinical and research interests included valvular heart disease, adult congenital heart disease, hypertrophic cardiomyopathy, and the physiologic basis of heart sounds and murmurs. But he may be remembered best for his teaching.

As a Pitt faculty member for more than 40 years, Shaver trained hundreds of cardiologists. William Follansbee, who teaches in the Division of Cardiology, says he will remember Shaver for his remarkable ability to teach medical students and cardiology fellows. "It was probably his greatest strength," Follansbee says. "I think the fellows in general who have gone through the program over the last couple decades all saw him as an important mentor."

For many years, Shaver designed and ran the fundamental cardiovascular course for second-year students. "An extensive amount of work goes into the course," says Follansbee. "The syllabus just for that course is two volumes thick."

A spirit of eternal optimism was part of what helped Shaver shape the curriculum and guide students in their careers, Follansbee says. He notes that in later life Shaver wouldn't let his own medical issues get him down, and that he still went skiing and traveled to conferences. "He was dedicated and motivated until the very end," he says. *—DF*

GERHARD WERNER

SEPT. 28, 1921–MARCH 26, 2012



Werner

Gerhard Werner, an MD and former dean of Pitt's School of Medicine, was an avid reader: He devoured books of philosophy and literature and encouraged his students to do the same. Werner's inquisitiveness was an essential part of him, says William de Groat, a former colleague.

"Werner was excited about research and was always thinking of something new to do," says de Groat, Distinguished Professor in the Department of Pharmacology and Chemical Biology. In the 1960s, de Groat joined Pitt under Werner, then the department's chair.

An innovative neuroscientist, Werner published more than 100 scientific papers and developed a muscle relaxant (succinylcholine), his first major invention; it's still used by anesthesiologists today. With a keen interest in computer science, Werner, while at Pitt, helped devise an early artificial intelligence-driven medical expert system.

"He was visionary, but also urbane and cultured," says de Groat, noting that Werner's worldliness was particularly evident in the classroom. Hoping to enliven lectures, he often shared witty stories about his extensive travels. (He graduated from the University of Vienna's medical school and worked in India and Brazil before emigrating to the United States in 1957.)

In 1974, he was appointed dean of the medical school. Although he was a basic scientist, one of his most lasting administrative contributions was a practice plan system that would prove key to turning the school's financial situation around during difficult times, Barbara I. Paull notes in *A Century of Medical Excellence* (1986).

Werner was honored with the U.S. Senior Scientist award from the Alexander von Humboldt Foundation in 1985.

After retiring from Pitt in 1989, he became an adjunct professor of biomedical engineering at the University of Texas at Austin. There, he stayed active in such research areas as artificial intelligence and neurodynamics. *—Dana Yates*

IN MEMORIAM

'40s

HARRY S. HARTMAN
MD '43A
DEC. 8, 2011

'50s

PETER P. STAJDUHAR
MD '52
DEC. 3, 2011

EDGAR S. HENRY JR.
MD '53
APRIL 4, 2012

MARTIN ARISTARK MURCEK
MD '58
MARCH 16, 2012

'60s

EDWIN DELROY STUTZMAN JR.
MD '61
APRIL 12, 2012

ROBERT EMERSON CAVEN
MD '64
JAN. 15, 2012

LOUIS D. META
MD '67
MARCH 15, 2012

'70s

ALAN JOHN KUNSCHNER
RES '72
MAY 2, 2012

'80s

JEFFREY S. GIBSON
MD '89
APRIL 9, 2012

'90s

AMY C. MASZKIEWICZ SOBIESKI
MD '97
MARCH 4, 2012

FACULTY

ANTHONY H. VAGNUCCI
APRIL 19, 2012

PATRICK G. LAING
MARCH 28, 2012

DAVID MADOFF
REGENERATE, WITH PRECISION

BY SHARON TREGASKIS



COURTESY MADOFF

Madoff helps make diseased livers strong enough for resection.

When it comes to cancer, the last thing a patient wants to hear is, "I'm sorry, it's inoperable." Interventional radiologist David Madoff (MD '95) hates for anyone to deliver such news. So he has dedicated the past decade to refining a pre-operative procedure known as PVE (portal vein embolization) that makes more patients with liver cancer eligible for surgery.

Unlike such organs as the kidney, lungs, or heart, the liver responds to severe injury with a growth spurt. It's like a starfish sprouting a new arm after a predator's attack: Remove a portion of the organ, and the remaining piece will regenerate to full capacity within months. But there's a catch: Take too much, and what's left shuts down, flooding the body with toxins and bacteria.

"People can die after surgery if they have a very small liver," says Madoff, now chief of the Division of Interventional Radiology at NewYork–Presbyterian Hospital and Weill Cornell Medical College. Without intervention, he says, just 25 percent of patients who need extensive resection would qualify.

Enter PVE, pioneered by Japanese surgeon Masatoshi Makuuchi in 1990 and since refined by Madoff, who's traveled throughout the world teaching the procedure. Like most techniques developed by interventional radiologists, it's minimally invasive. Using imaging technology to reveal the portal vein, the radiologist threads a catheter into the blood vessel to be embolized and then injects either a chemical solution or beads that block blood flow to the part of the organ slated for removal. Much as an arborist prunes diseased limbs to ensure enough sunlight and nutrients make it to healthy branches, PVE reduces blood supply to the portion of the liver slated for removal and concentrates resources in the rest of the organ, spurring liver regeneration before surgery. Four weeks later, after a CT scan confirms that the rest of the liver has gained volume, the patient, previously inoperable, is eligible for resection.

In 1991, the then-future radiologist Madoff discovered his love of imaging as a first-year medical student at Pitt, where he did independent research with faculty at the nascent PET Center. "I saw all of this new technology as the future of diagnosis and treatment," says the 44-year-old, who won a research award from the medical school's summer research program. "Pitt ... created a milieu where I could get excited about doing research and an academic career."

It wasn't until Madoff was a fellow in vascular and interventional radiology at the University of Texas M.D. Anderson Cancer Center that he came across PVE, then relatively unknown in the United States. His mentor had assigned him to present a case involving a patient whose PVE had led to complications. Madoff was hooked. "I wanted to make the procedure easier," he says, "with fewer complications. I realized there was a whole avenue of research just at its infancy."

Last year, Springer published a textbook, *Venous Embolization of the Liver: Radiological and Surgical Practice*, which Madoff edited with three others, including Makuuchi, now president of the Japanese Red Cross Medical Center in Tokyo.

Madoff has focused his PVE-related investigations on analyzing which patients are the best candidates and refining the devices and techniques involved to improve regeneration and reduce the risk of complication. He has also demonstrated that the procedure can be used with other tactics to starve out liver tumors while promoting function in healthy tissue, allowing some patients to avoid conventional surgery entirely.

"We've developed a safe technique over the course of years, where we've had very few complications," he says. "But some patients don't regenerate; we're still working on the predictors of who regenerates and who doesn't." ■

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