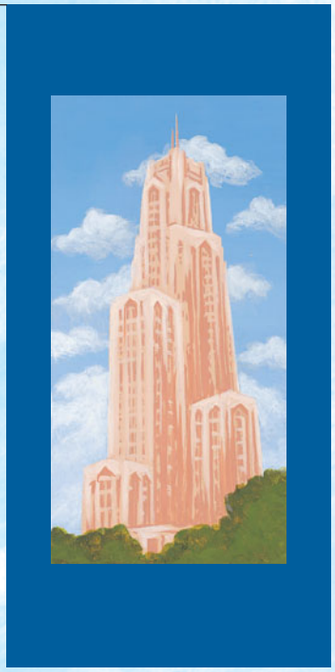


CLASS NOTES

'60s

William Capello (MD '68) and **James D'Antonio** (MD '68) have been very close friends for more than 51 years. Fraternity brothers and football teammates at Rutgers, the two applied to and got admitted to Pitt med together.

Both Capello and D'Antonio specialized in orthopaedics—the former in academic medicine from the start, owing to inspiration from mentors Albert "Ferg" Ferguson and Jack Meyers. In 1984, as Capello was chairing the American Academy of Orthopaedic Surgeons' hip committee, he convinced his friend to join in on the fun.

D'Antonio, who has a bachelor's degree in materials engineering, now coleads an ongoing study on hydroxyapatite-coated hip implants with Capello, professor emeritus of orthopaedic surgery at Indiana University. The two have investigated and designed new hip implants, as well as knee-instrumentation systems, since 1988.

'80s

Recently, while catching up with *Pitt Med* via phone, **Waldo Concepcion** (Transplant Surgery Fellow '89) opened a card someone handed to him. It was from a college freshman who, as a child, had been on constant dialysis. Then, three years ago, he had a live-donor kidney transplant. Now, his life is no longer tied to a machine. In his card, he wrote of his bike trip at college.

Moments like this are not uncommon for Concepcion, professor of surgery, chief of clinical transplantation, and chief of pediatric kidney transplantation at Lucille Packard Children's Hospital at Stanford. He has founded liver transplant programs at California Pacific Medical Center and Loma Linda University Medical Center, which are lauded for their high survival rates. Concepcion's hope is that advancements in immunosuppression and diagnostic tests will mean even better outcomes. "We need to hone down and go deeper into every patient's response, to modify suppression for each person," he says.

'90s

Edwina Kinchington (Pharmacology PhD '97) launched her career in cancer research at Pitt. And as she trained, she realized her passion for teaching. "I really wanted to get to the students before they knew what they wanted to do because there are so many opportunities out there in the biomedical fields," she says. Then, in the spring of 2009, fate smiled: The Pittsburgh Science & Technology Academy (a.k.a. SciTech)—a new public science-oriented high school—was looking for teachers who had worked in the field. It was perfect. Kinchington could even build her own lab and create her own program. Now, as lead teacher for SciTech's Body and Behavior track, Kinchington opens 10th- and 11th-graders' eyes to biomedical technology and the life sciences, emphasizing hands-on learning and problem-solving. And as orga-



Kinchington with Candy (in the life vest) and Toby.



Jou (far right) with sister Annie and Adedotun Adebamiro (PhD '06, MD '08, middle) at a block party in New York City in June 2012.

GREGORY DUMANIAN

THE BIONICS MAN

Gregory Dumanian (Plastic Surgery Fellow '93, Plastic Surgery Resident '95) is one physician-scientist who could be excused for resting on his laurels. Dumanian, chief and program director of the Division of Plastic Surgery at Northwestern University, pioneered targeted muscle reinnervation (TMR) with Todd Kuiken, a physiatrist and engineer, in the early 2000s—a procedure noted for bettering the lives of upper-limb amputees. But Dumanian isn't one to sit still.

Conventional upper-limb prostheses, which are controlled by systems of cables or electronics, are very limited; they can only handle one motion at a time (the elbow bend or the hand grip, for example). So in the late-1990s, Kuiken and Dumanian began to experiment with the residual nerves in upper-limb amputees—rerouting nerves to remaining muscles, which motorized prostheses could be built to respond to.

Since the first human TMR surgery, performed by Dumanian in 2002, this so-called "bionic arm" procedure has gone from experimental to fairly commonplace, with remarkable results: Dumanian says that his operations, as well as those performed by military and overseas colleagues, have a 95 percent success rate.

Dumanian, who is a renowned expert on reconstructive surgery (of the abdominal wall, in particular), has contributed to studies on the feasibility of lower-limb TMR, as well. Leg prosthetics don't need the precision of TMR, he explains; for them, strength and durability are more important. But TMR shows promise for

nizer of the SciTech Science Forum seminar series, she frequently calls in colleagues from the school's partner, Pitt, for demonstrations and guest lectures.

'00s

Roger Jou (MD '03) is fascinated by how physical brain structures generate and influence behaviors. His curious nature and talent for working with computers led him to neuroimaging research, with a focus on structural MRI and diffusion tensor imaging. As an instructor in Yale's Child Study Center, he's investigating whether a specific phenotype in autism can be defined by patterns of disconnection in the brain. "There may be one pattern that emerges, but I think there's so much heterogeneity," he says. "I like to think of it as traffic on the road. If you want to get from A to B, there are a number of routes that get there, but also a lot of delays and blockages you might find, too." In January 2011, the National Alliance for Research on Schizophrenia and Depression honored Jou with a Young Investigator award.

When **Elizabeth Tyler-Kabara** (Neurological Surgery Resident '04) was a resident at Pitt, she heard about an investigator out in La Jolla, Calif., named Andy Schwartz, a PhD who had working animal models of exactly what she had long dreamed of doing for her patients with brain or spinal cord injuries, strokes, and neurodegenerative disease: helping them regain function by rerouting around the injured portions. Schwartz's monkeys moved robotic prosthetics with their minds—the beginnings of brain-computer interfaces.

"I literally scraped together my pennies to rent a car and called him and said, 'Can I come visit your lab for a day?'" says Tyler-Kabara.

In California, they had the first of many conversations where they lamented the distance that kept them from working together. And a few years later, they finally bridged it. Schwartz had been recruited to Pitt (the PhD is now professor of neurobiology). And Tyler-Kabara, who'd just completed a fellowship in Alabama, realized it was time to come back to Pittsburgh. In addition to the opportunity to finally work with Schwartz, she also saw that the place that had formed her as a surgeon would be an ideal launchpad for her as a physician-scientist.

Migrating back to Pitt worked out even better than she'd hoped. In 2008, Tyler-Kabara, a member of the Pitt/UPMC McGowan Institute for Regenerative Medicine and an assistant professor in the Department of Neurological Surgery, won a Clinical and Translational Science Institute (CTSI) pilot award, giving years' worth of insights gained in Schwartz's animal studies the chance to prove their mettle in humans. In October 2011, the team enabled a Pennsylvania man, paralyzed years ago, to control a robotic arm with his thoughts and reach out and touch his girlfriend's hand.

At Rochester, Minn.'s Mayo Clinic, **Timucin Taner** (Immunology PhD '05) investigates a phenomenon seen in multiple-organ transplants: When they involve a liver, the other foreign organs are protected from organ rejection and other immunological problems. This protective quality is only seen when all the new organs have the same origin.

"If we can understand the immunology behind it, it will first help our overall understanding of the transplant immunobiology," he says. "It has a potential to change our practice, too."

Of course, not every liver-transplant recipient needs a second organ. One modification that could arise from this research, Taner suggests, would be partial liver transplantations to add this immunological benefit.

Wendy Anderson (Palliative Care Fellow '07), an assistant professor in the Division of Hospital Medicine and Palliative Care at the University of California, San Francisco, completed CTSI's Master in Clinical Research program. While at Pitt, she designed a study on provider-patient and provider-family communication in end-of-life care, a topic she published on twice before graduation. This work led to a faculty job and funding from the National Palliative Care Research Center, as well as a coveted career-development award from UCSF. "CTSI is a lot of the reason I chose a fellowship at Pittsburgh," she says. What made the difference: great mentorship in both translational medicine and her specialty. "Bob [Bob Arnold, the Leo H. Criep Professor of Patient Care and professor of medicine at Pitt] is a wonderful mentor and continues to be a mentor to me today—probably the best I've ever met. ... I always have a voice in the back of my head asking, *What would Bob say about this?*"

—Em Maier and Elaine Vitone



Dumanian (right) with Northwestern Memorial Hospital colleague Todd Kuiken (left) and Oskar Aszmann (middle), a plastic surgeon from Vienna, at the first conference on targeted reinnervation in October 2011.

controlling these patients' neuromas—the painful severed nerve endings associated with amputation. "If you give that nerve somewhere to go and something to do, it quiets the nerve down," he says.

Now, along with Kuiken, Dumanian is working on true osseointegration—the integration of metal into living bone—in attaching prosthetic limbs. Though long successful in dental medicine and joint replacement, the process has had a high infection rate when attempted with prostheses. But Dumanian sees hope.

"People have always looked at it as an orthopaedic problem," says Dumanian. "But it's not—it's a soft-tissue problem; it's a plastic surgery problem. How you put a metal pin through the skin into the bone without getting infected depends on the seal of the soft tissue.

"Osseointegration would help a thousand times more people than TMR could." *—Justin Hopper*

CHECKUP

So, Doc, how are *you* doing? Don't keep it a secret. Share your personal news with old friends on the School's Facebook page. And here at the mag, we'd love to hear about novel and nationally newsworthy goings-on: honors you've received, appointments, volunteer work, publications, and the like.

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CAROLYN CARTER

NOV. 25, 1932–SEPT. 15, 2012

As the second dean of the Office of Minority Affairs in the School of Medicine's history, Carolyn Carter coordinated recruitment efforts, academic support, and other services for students from underrepresented groups. And to entice high school students into medicine, she founded a medical-professional shadowing program now known as the Summer Premedical Academic Enrichment Program, which is still running today.



Carter

"The legacy that she left was establishing a tradition of having pipeline programs for underrepresented students," says Paula Davis, assistant vice chancellor for health sciences diversity at the University of Pittsburgh.

"But what stands out to me were the things that happened away from Scaife Hall," says Dale Adair (MD '85), one of the dozens of Pitt med students who came to know Carter as a mother away from home. "She treated everybody like family. There were events at her house in Monroeville. Cookouts. Thanksgiving. She helped us build relationships and bond with each other, and she provided support. She was a very warm and inviting soul."

Carter died in September. She was 79.

She earned her RN degree at St. Francis in 1953 and later became one of the first African Americans to serve as head nurse at the hospital. She went on to earn her bachelor's degree in nursing, master's degree in psychiatric nursing, and PhD in higher education administration at Pitt.

The roots of her passion for enhancing opportunities for others ran deep: The daughter of the head of the Mon Valley chapter of the NAACP, Carter joined the massive 1963 March on Washington, bringing her daughter with her.

On April 27, the Pitt chapter of the Student National Medical Association (SNMA) will memorialize Carter at its annual scholarship-fundraiser banquet, which, several years ago, was renamed in Carter's honor. For information about the event or to contribute to the Carolyn M. Carter Scholarship Fund, contact the Office of Health Sciences Diversity at 412-648-2066. *—Elaine Vitone*

BERTRAM R. GIRDANY

MAY 27, 1919–JULY 31, 2012



Girdany

In 1950, when Bertram R. Girdany arrived in Pittsburgh to become the first head of Children's Hospital's radiology department, most pediatric radiology cases were handled at general hospitals. Children were still treated as small adults.

"He was able to bring a special way of treating children that was completely novel," says Girdany's protégé, Shashikant Sane. "He was way ahead of his time."

Girdany died on July 31, at age 93, in his home in Sarasota, Fla.

To minimize radiation exposure, he ensured children's doses were as low as possible and developed alternative procedures. And, as chair, he worked to build a multidisciplinary team, transforming the hospital into one of the giants in the realm of pediatric radiology.

Girdany was a caring mentor. When Sane left to become founding chair of radiology at Minneapolis Children's Hospital, Girdany and his own renowned mentor, John Caffey, checked in on Sane.

"[Girdany] came himself to make sure the job was okay for his boy, making sure the people I would be working with would be treating me appropriately. In 1975, they visited again to make sure I was doing fine, with a standing invitation to come back if I was unhappy," Sane says.

Girdany encouraged his mentor to establish the John Caffey Society, a prestigious group that still meets annually to share new ideas and publications.

Sane and Girdany stayed in touch, even after Sane's departure.

"I became part of the family," says Sane. Girdany encouraged Sane's two children to become radiologists. Both took his advice. *—Em Maier*

JEFFREY A. KANT

OCT. 4, 1946–SEPT. 29, 2012

Jeffrey Kant, the MD/PhD director of the Division of Molecular Diagnostics in the University of Pittsburgh's Department of Pathology, professor of human genetics and pathology, and director of the pathology residency training program, was known as an affable colleague and mentor. His residents honored him as "the residency director with the open door, open appointment book, and open mind."



Kant

Kant died in September. He was 65.

"He always created opportunities where he would take most of the diagnostic load to allow younger faculty to get their research [done] and move forward," says George Michalopoulos, pathology department chair, Distinguished Professor, and close friend of Kant. After Kant's death, Michalopoulos received more than a hundred messages from people inquiring about the beloved vanguard in the field of molecular diagnostics.

Kant helped found and also served as the first president of the Association for Molecular Pathology. As he established his own lab, he strove to engage the field more broadly, sharing his knowledge and expertise in diagnostics. His work led to the introduction of molecular diagnostics components to pathology labs across the country, and Kant continued the expansion of the discipline, discussing the economic and political issues related to the field. His teaching curriculum has been emulated in more than half of the pathology fellowships in the country, says Michalopoulos.

"More than anything else, he was a very pleasant person. He would take adversity with a sense of sagacity and a smile and say, 'You can turn it around; don't worry about it.' You rarely find that kind of attitude." *—EM*

IN MEMORIAM

'40s

EDWARD J. BENZ, SR.
MD '46
OCT. 26, 2012

'50s

DAVID STEELE
MD '51
JUNE 27, 2012

CARL KLODELL
MD '58
OCT. 18, 2012

FACULTY

ANNE RUSH COOK
MARCH 6, 2012

RICHARD STEINMAN ON VARIABLE GROWING CONDITIONS

BY SHARON TREGASKIS



CAMI MESA

Steinman received the Award for Innovations in Research Training and Education from the Association of American Medical Colleges this fall.

In 1889, a young West London physician investigated more than 700 cases of fatal breast cancer, deploying an agricultural metaphor in his analysis. "When a plant goes to seed, its seeds are carried in all directions," Stephen Paget mused in *The Lancet*. "But they can only live and grow if they fall on congenial soil." The uneven spread of cancer to some organs and not others, he concluded, must owe to variable growing conditions. Scientists, he wrote, must attend not only to the cancer itself, but the "soil" in which it sprouts.

In his laboratory, Richard Steinman (Res '90), an MD/PhD associate professor of medicine and pharmacology at Pitt, puts a twist on that classic metaphor: "Cancer cells on their own are incompetent to cause disease," he says. "What is vital is that they corrupt and engender the collaboration of normal cells around them to generate a local environment that's nurturing for the cancer's growth."

Paget was on to something, says Steinman. But for 100 years, scientists have had limited tools to analyze the dynamic, time-dependent relationship between seed and soil. Think of it, he suggests, more like a stage play. "I'm using some novel approaches to identify that corrupting dialogue," he says. "We assign the words of parts of that dialogue to either the cancer cells or normal cells and then test whether—in the laboratory setting—we're able to make either the cancer cells mute or make the normal, bystander cells surrounding them deaf so they don't hear the corrupting signals."

Cancer disproportionately affects people from underrepresented ethnicities, who are more likely to be diagnosed at a later stage of disease, are less likely to get adequate treatment, and have lower survival rates than others. They are also less likely to be involved in clinical trials and less likely to become physician-scientists, seeking the solutions so desperately needed in their communities. For as long as Steinman has been investigating the molecular signals associated with cancer's spread, he's been tackling those issues, as well.

As an MD/PhD student at the University of Pennsylvania in the '80s, Steinman ascended to the presidency of the Philadelphia chapter of Physicians for Social Responsibility and later to its national executive board. From 1994 to 2000—after finishing his residency and a postdoctoral fellowship at Pitt—he served on the African American Awareness Coalition, a partnership of the American Cancer Society and Pittsburgh medical centers to boost education and outreach regarding cancer detection and treatment within underrepresented groups. This fall, the Association of American Medical Colleges honored Steinman—associate dean and director of Pitt's Medical Scientist Training Program and director of the Physician Scientist Training Program—with its Award for Innovations in Research Training and Education. The award recognizes a partnership he established between the University of Pittsburgh Cancer Institute and Hampton University, a historically Black institution in southeastern Virginia, to introduce undergraduates there to the joys and challenges of oncology research.

Like his labors in the laboratory, says Steinman, his interest in mentoring aspiring physician-scientists and addressing the social correlates of cancer arise from the same root: a desire to amplify his impact. "There is the potential," he says, "to have an effect far beyond what's possible with a set of one-on-one interactions." Not that he doesn't appreciate the one-on-one. Perhaps the most meaningful award he's garnered was Pitt's Donald S. Fraley Award for Mentoring Medical Students, bestowed in October 2012. "It was deeply moving—more so than other past awards," he says, "because the students took it upon themselves to instigate the process."

Mehret Birru Talabi (MD '11), now a resident at UPMC, met Steinman more than a decade ago while an undergraduate exploring career options. Steinman put her to work on a health literacy project. Seeing the joy her mentor took in his research propelled Talabi to medical school and a PhD in epidemiology with an emphasis on disparities. "He's found a lot of creativity and passion and interest in what he's studying in a way that I'd never seen before," says Talabi. "His interests—in disparities, in education, in developing new scientists—are all an extension of how he looks at issues and attacks problems creatively." ■