UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE | WINTER 2021/22

PITTMED



FREDDIE FU CHANGED SPORTS MEDICINE



Grant Haley: Super Bowl Champion

From losing his father in a tragic accident right before the 2021 season, to the Rams picking him up in October, to winning the Super Bowl... someone's smiling up there.

His story: abc27.com/sports/the-spo.



Allie Berube and 4 others

10:13 PM - Feb 13, 2022 - Twitter Web App

L Meadows @Meadowsifcs - Feb 14

Replying to malliaborube maleyboy10 and 3 others

Congratulations Grant! Dr. Haley was no doubt one of my most favorite
colleagues! He was so proud of you and your siblings! Way to persevere!











SHOUT-OUTS Join the conversation on Twitter.





ABOVE: See Leon Haley Jr. obituary page 36.



RECENT MAGAZINE HONORS

2021 Press Club of Western Pennsylvania Golden Quill Awards

- Excellence in Written Journalism— Medical/Health (E. Vitone, "Groundswell")
- Excellence in Audio Journalism— Medical/Health (M. Best and E. Vitone, "Pitt Medcast: Relationship Abuse")

2021 Pittsburgh Black Media Federation Robert L. Vann Media Awards

- Excellence in Written Journalism/ Magazines—Health/Medical (E. Vitone. "Groundswell")
- Excellence in Written Journalism/ Magazines—History/Culture (G. Jenkins, "Left of Bang")

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We gladly receive letters (which we may edit for length, style and clarity).

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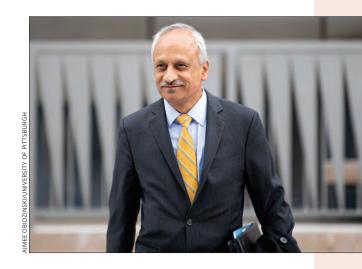
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"If you want to go quickly, go alone. If you want to go far, go together."

- African Proverb



Dear Pitt Med Readers,

In this edition, we salute Freddie Fu, the late chair of orthopaedic surgery, who was a giant in sports medicine. Freddie was revered for his skill as a surgeon and for his inexhaustible spirit and enterprise. He was also beloved because he gave of himself readily—to his patients, his students, his colleagues, to anyone he came across. And, to our great fortune, he was extraordinarily devoted to his adopted hometown. Pittsburgh will not be the same without him.

Following Freddie's example, Pitt Med will not only continue to strive to be one of the best academic medical centers in the country, but will be equally devoted to making Pittsburgh better through broad partnerships and community engagement. It has not escaped our notice that though people come from throughout the world to see Pitt specialists, many of our immediate neighbors who reside in disadvantaged neighborhoods have poor health outcomes, struggle to get access to care and lack resources for healthy living. This situation is not unique to our city. Across the country, we can point to communities with some of the worst health outcomes that are in the shadow of great academic medical centers. We are determined to change that in Pittsburgh.

To achieve this goal, we want evidence-based solutions that work and programs that meet people where they are. Who best to get us started finding answers than the people who experience these difficulties? Our first task, then, is to learn how we can partner with them.

Great medicine has always been a team sport, but the team roster urgently needs to include our neighbors and patients, as well as care professionals. This magazine issue is full of stories about how Pitt researchers are building community alliances.

Pitt physicians and scientists are listening and learning from communities in ways that we hope will transform health care as we know it today. They're not just meeting occasionally with advisory boards; they're building partnerships. And these community partners are teaching us how to implement solutions effectively in the boroughs they live in and in the schools their children attend. Some are even helping to shape the scientific questions being asked.

Already, these initial programs are pointing us toward care solutions that work in the real world—that are not just appropriate for resource rich, academic care environments. And, critically, these partnerships are helping us gradually earn the trust of people who've so far been denied many of the promises of modern medicine.

These are some of the ways that we can walk toward a healthier future, together.

Anantha Shekhar, MD, PhD
Senior Vice Chancellor for the Health Sciences
John and Gertrude Petersen Dean, School of Medicine

PITTMED

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"It's a beacon of our commitment to the health sciences."

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ABOUT THE COVER Freddie Fu electrified Pittsburgh as he changed sports medicine. Photo courtesy UPMC.

Pitt Med is published by the Office of the Dean and Senior Vice Chancellor for the Health Sciences and produced quarterly for alumni, students, staff, faculty and friends of the School of Medicine.

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BY ELAINE VITONE

Share and Share Alike

Even though clinical trial data belong to the volunteers who make it possible, historically, researchers have not shared it. Mylynda Massart says it's time to change that.

BY ELAINE VITONE

911, What's Your Emergency?

Most 911 calls aren't because of medical problems, but they are calls for help. A new breed of paramedics is trained for boots-on-the-ground realities.

BY ELAINE VITONE

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A "failed" study leads to a reckoning and promising new preventive care for HIV.

BY CLARE COLLINS

Once they got help for Williams' dog, he let them help him.



CONTRIBUTORS

MICHAEL AUBELE ["Kenya Connected" and other contributions], a new member of the strategic communications team in the health sciences, has been a go-to writer for Pitt Med magazine stories for several months. So far, "Kenya Connected" is his favorite assignment. He is amazed, he says, by the work that medical students are doing every day to improve people's lives. "I felt honored to be able to talk with those students and their mentors," he says.

CLARE COLLINS ["Silver Linings"] is the director of marketing and communications at Pitt's School of Public Health. She approached her feature story on the Microbicide Trials Network with intimate knowledge, having previously worked with the network for more than a decade as associate director of communications and external relations. "Their spirit of openness enabled [MTN researchers] to integrate social and behavioral science into their research agenda," she says, "and focus on HIV prevention options that fit into people's lives, rather than the other way around."

OF NOTE



Devoted to noteworthy happenings at the medical school

McKeesport Physician Tapped to Lead Family Medicine

Tracey Conti, an MD and a 16-year veteran of the UPMC McKeesport Family Medicine Residency, has been named chair of the Department of Family Medicine for the School of Medicine. As chair, Conti will also ensure equitable, high-quality care for the more than 50,000 patients who visit UPMC family medicine facilities.



Conti

"Family medicine is rooted in primary care," says Conti, "but the key elements are providing continuity and comprehensive care for individuals and their families across the spectrum. It's really about caring for patients in their entirety."

For example, she says, "We know that Black patients are seeking primary care from the emergency room more than they are from primary care doctors. We need to meet our community members where they are."

"Dr. Conti will bring a passion for whole-patient centered care to her new role within Pitt health sciences that will enhance our training for the next generation of family medicine leaders," says Anantha Shekhar, an MD, PhD, senior vice chancellor for the health sciences and John and Gertrude Petersen Dean, School of Medicine. "I look forward to seeing collaborations across Pitt and UPMC develop under her leadership."

A Pittsburgh native, Conti earned her medical degree from Temple University. She completed her residency and fellowship at the University of Maryland and joined the Pitt faculty in 2001. She is board chair and past president of the Pennsylvania Academy of Family Physicians.

Family medicine and primary care physicians can be difficult to find and retain. As chair, Conti hopes to grow the number of primary care physicians by creating a centralized home for residency programs that can expose students to the breadth of care this specialty provides.

Conti also hopes to continually improve quality of care by establishing a practice-based research network to share clinical expertise and experiences. —Staff reports

FOOTNOTE

Pitt health sciences continue to rate highly in the annual U.S. News & World Report rankings. The latest report puts the School of Medicine at number 14 in research, 10 in primary care, 10 in surgery and 7 in psychiatry. The School of Nursing's Doctor of Nursing Practice landed at number 7. And within the School of Health and Rehabilitation Sciences, audiology, occupational therapy, physical therapy and speech-language pathology all made the top 10 among comparable graduate offerings.



The Place for Pandemic Preparedness

"Mr. Secretary, have a look at this highly infectious microbe."

On a Sept. 30, 2021, visit to the University of Pittsburgh Center for Vaccine Research (CVR), Secretary of State Antony Blinken learned how scientists here are contributing to the fight against COVID-19.

Blinken, in Pittsburgh to attend the inaugural Trade and Technology Council meetings with the European Union, met with Chancellor Patrick Gallagher and Anantha Shekhar, senior vice chancellor for the health sciences and John and Gertrude Petersen Dean, School of Medicine.

So, what research was the secretary privy to during his visit?

Amy Hartman, associate professor of infectious diseases and microbiology, showed him the cause of the COVID-19 pandemic in microscopic detail.

Under the lens was a slide of SARS-CoV-2-infected cells. The image also encapsulated the major research focus of CVR for the past two years.

CVR was one of the first facilities in the United States to receive samples of the novel coronavirus; Pitt researchers and their collaborators worldwide have since made significant contributions toward understanding the virus's biology and developing promising treatments.

"If we've learned anything during the last 18 months, it's that we can't ignore the threat of emerging infectious diseases," Gallagher said. "The University of Pittsburgh's Center for Vaccine Research is uniquely positioned to tackle this challenge, and it complements a deep bench of talented Pitt scientists, clinicians and scholars that is pushing the frontiers of this research forward every day."

The image of SARS-CoV-2-infected cells Blinken saw was created by

Sham Nambulli, research scientist and member of Jonas Salk Professor of Vaccine Research and CVR Director Paul Duprex's lab. Nambulli is part of the team that genetically engineered the measles vaccine to act as a potential vaccine for coronavirus. The group collaborated with Yi Shi, then a Pitt assistant professor of cell biology, to develop "nanobodies," cloned from a llama, that could become inhalable drugs to treat and prevent COVID-19 infection.



Blinken

Matthew Neal, Roberta G. Simmons Associate Professor of Surgery, briefed Blinken regarding how Pitt and its clinical partner, UPMC, work in tandem with medical centers throughout the world to pinpoint effective treatments for COVID-19—at an unprecedented pace. Clinical trials that are adaptive, that learn and adjust as they go, are yielding life-saving insights.

After his tour, Blinken tweeted, "Biomedical research is key to protecting public health, including reducing the risk of future pandemics. Thank you to the team at @PittTweet Biomedical Research Facility for saving lives and improving American health security."

CVR was a popular stop this fall. Sen. Bob Casey, a champion of biosafety lab funding, visited in October to learn about what it takes to tackle emerging infectious disease threats.

"It's hard to get across what we do sometimes," said Natasha Tilston-Lunel, postdoctoral associate working with Duprex. "Having visibility for this work is so important." —Staff reports



Blossoms from Brownfields

Stage for a New Pittsburgh Economy

Pitt announced in November that it received a \$100 million grant from the Richard King Mellon Foundation to fill a vital missing link in the region's economy.

The grant will help build a highly specialized biomanufacturing facility on an old mill site and former brownfield in Hazelwood. Called Pitt BioForge, the facility will leverage the biomedical and clinical expertise at Pitt and UPMC. The project is also designed to increase economic opportunity for residents in and around Pittsburgh's Hazelwood neighborhood.

"The University of Pittsburgh is a leader in biomedical research, but we could not have made this leap without the Richard King Mellon Foundation's transformational gift," Chancellor Patrick Gallagher says.

The planned 200,000 to 250,000-square-foot Pitt BioForge facility will benefit an array of research projects. It should propel forward the experimental work of Leah Byrne, a PhD assistant professor of ophthal-

mology, who aims to restore sight to patients with retinal disease. She uses engineered viruses that deliver snippets of DNA directly to cells in the retina. Currently, no facility in Pittsburgh, and only a select few worldwide, can create the required tools at the scale she needs.

Bringing biomanufacturing to the city helps eliminate supplychain hurdles. One upshot, which will be life-changing or even lifesaving for some, is that Pittsburghers will have access to the very latest therapies—and those should be available sooner than they typically are now.

"This type of facility would broadly facilitate the commercialization of novel technologies and drugs, including new cellular therapies, antigens for vaccine development and new devices that can deliver therapies in a manner that is more effective, safe and patient friendly," says Louis Falo, an MD, PhD and chair of the University of Pittsburgh's Department of Dermatology. He leads a team pioneering microneedle arrays for administering vaccines and other therapies.

The location for the facility, Hazelwood Green, is a 178-acre former industrial site being developed as a mix of office, retail, affordable housing and community space. —Staff reports



Middle School Champs

Parents of middle school students might tell you it's tough to understand what's percolating in a young person's mind. Consider a seventh-grade student at Arsenal Middle School who learned CPR as part of an education partnership between the middle school and the University of Pittsburgh School of Medicine. The learning experience inspired her to start thinking about forensic medicine.

Sylvia Owusu-Ansah, MD assistant professor of pediatrics, says the girl was new at Arsenal last year and seemed hesitant. But over time, she proved to be very curious. "She asked very astute questions," says Owusu-Ansah, who noticed the girl's confidence building toward the end of the 2020-2021 school year. So when Owusu-Ansah bumped into the girl's mother at a back-to-school event this year and learned her latest interest, Owusu-Ansah walked away with a sense of validation for the program.

"The mother told me that her daughter wants to work in a morgue someday," says Owusu-Ansah. "So there was this misconception [at first] that she was disconnected, when it turns out she was very connected."

Pitt Med faculty and students launched the Career Help Advancement and Achievement Mentorship Program (CHAMP) in August 2020 as a way to connect medical students and middle school students from underrepresented groups.

CHAMP offers middle-schoolers advanced STEM education and provides leadership experience to the med students. "This is mentorship in a 360-degree view, because while we get to mentor these students, we are being mentored by other professionals," says second-year med student Nia Buckner, one of the medical students who serves on the program's steering committee.

Buckner points out that CHAMP offers more than a CPR lesson. Arsenal students were given STEM and wellness kits that were used in conjunction with specific curricula. And in line with CHAMP's mission of providing academic and healthy lifestyle guidance, students will learn life lessons that go beyond medicine and science. In one example, the kids will learn financial skills through the support of Dollar Bank, which is among the community sponsors helping to make CHAMP possible.

Pediatrics faculty members Noel Spears Zuckerbraun, MD associate professor, and Oriquida Torres, MD assistant professor, say their involvement in CHAMP has been incredibly rewarding. "What better way to move the needle than in our own neighborhood," says Spears Zuckerbraun.

The needle is moving among the roughly 150 students participating, says Arsenal teacher Tara Maddex. Speaking specifically to the CPR curriculum, she says the students enjoyed it, though there was one hang-up with the CPR doll each was given: "Their biggest concern was, 'Do I really have to put my mouth on this?" Maddex says with a laugh. "But I think my kids thought it was really exciting. They were super engaged."

-Michael Aubele

SOLUTIONS, NOT SIDES

The School of Medicine has established an Ombuds Office; it's designed to provide a safe, welcoming, confidential and unbiased setting for students to relay their concerns and explore options available to them for informal resolution.

"This impartial office is another avenue for students to have their concerns heard," says Anantha Shekhar, an MD, PhD, senior vice chancellor for the health sciences and John and Gertrude Petersen Dean, School of Medicine.

He expects that the Ombuds team will help identify opportunities for systemic change and be a source of meaningful suggestions for ways to improve the school.

Students may contact the Ombuds Office to discuss difficulties that have been unresolved elsewhere. They are also encouraged to contact the Ombuds Office directly if for any reason they are fearful, embarrassed or unwilling to contact other offices.

Ombudspersons are prepared to offer guidance on interpersonal conflicts with supervisory personnel or colleagues, academic disputes, bullying, harassment, grievances or questions about University policies. Its staff will help students find a resolution to their issue but will not take sides, says Dean Shekhar

The office is likely to become a model for other Pitt units, notes Valerie Kinloch, Reneé and Richard Goldman Dean and professor of education at Pitt, who is an advisor to the Ombuds program:

"I believe that, over time, this new Ombuds unit will be able to provide other campus units with tangible strategies and engaging practices for truly centering, valuing and supporting students and student experiences in even more proactive and productive ways," —*Michele Dula Baum*

For more information: www.medschool.pitt.edu/ombuds-office



NIH supports five "trailblazing" labs

"The science put forward by this cohort is exceptionally novel and creative and is sure to push at the boundaries of what is known," said Francis S. Collins.

Five Pitt Med faculty members have received prestigious awards from the National Institutes of Health (NIH).

These grants accelerate scientific discovery by supporting trailblazing ideas in clinical and basic biomedical science that may struggle under the conventional funding mechanism but could have a transformative effect in addressing important challenges in medicine.

"The science put forward by this cohort is exceptionally novel and creative and is sure to push at the boundaries of what is known," said former NIH Director Francis S. Collins. "These visionary investigators come from a wide breadth of career stages and show that groundbreaking science can happen at any career level given the right opportunity."

"To have five of our faculty members recognized in a single year is, indeed, cause for celebration," said Anantha Shekhar, senior vice chancellor for the health sciences and John and Gertrude Petersen Dean, School of Medicine. "These well-deserved awards recognize the outstanding potential of our early career investigators."

Christopher Donnelly, assistant professor of neurobiology, has been selected to receive a \$9 million NIH Director's Transformative Research Award. He will lead a five-year multicenter effort to identify the molecular and genetic mechanisms that cause amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease, and a related disorder called frontotemporal lobar degeneration (FTLD). "ALS and FTLD are two fatal neurodegenerative conditions with no current treatment to prevent, slow or stop brain cell death, and some patients develop both disorders," Donnelly said. "We think that studying their common biological pathways will help us find solutions for both disorders more quickly."

Jishnu Das, assistant professor of immunology, was awarded a \$2.4 million New Innovator Award funded by the National Institute of Allergy and Infectious Diseases (NIAID) for a project that aims to create three-dimensional maps of protein interactions; the work will shed light on how infectious pathogens interact with their hosts. Das and colleagues will apply their framework first to HIV and influenza,

with the goal of expanding to other infectious diseases in the future.

Three Pitt faculty members received the NIH Director's New Innovator Awards.

These \$2.4 million grants are funded through the agency's competitive High-Risk, High-Reward Research Program, which was initiated by the NIH to provide support to "exceptionally creative scientists pursuing highly innovative research with the potential for broad impact in biomedical, behavioral or social sciences within the NIH mission."

While most cell death studies focus on how cells die,

Yi-Nan Gong, assistant professor of immunology, received
an award to probe how some cells can begin to undergo a
cell death process called necrosis but eventually survive.
The study seeks to understand how these survivor cells contribute to the development of cancers and determine new
possible treatment targets.

Dwi Utami Kemaladewi, assistant professor of pediatrics, received the New Innovator Award for her research on muscular dystrophies. Studies to evaluate genetic treatments often fail to consider how people with diverse genetic backgrounds will respond to new therapies. Her work looks at how such studies can be applicable to a broader population.

"The New Innovator Award gives me the opportunity to focus on technological development prior to conventional hypothesis-driven research. To be able to do that as a junior investigator is very liberating," she says.

Guang Li, assistant professor of developmental biology, received the New Innovator Award to develop heart "organoids" that mimic anatomical features to model and treat congenital heart defects, which occur in 1-2% of all live births.

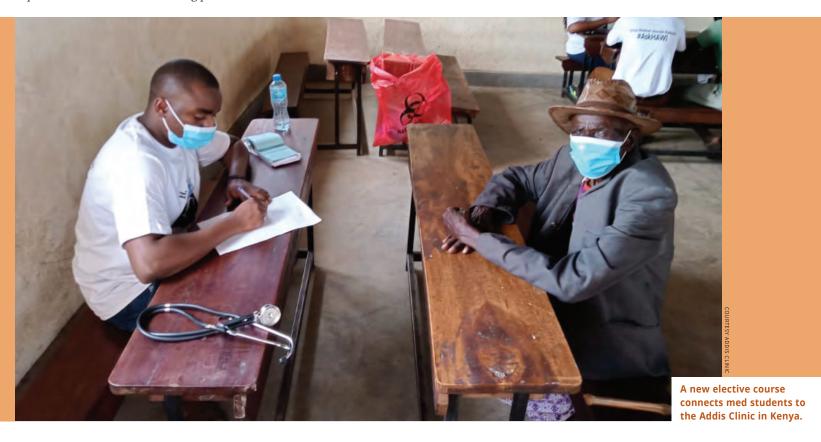
"This award gives my group an opportunity to explore the scientific boundaries in the cardiovascular and stem cell fields," Li said.

—Staff reports



Cartoon by Tara Kaloz

Explorations and revelations taking place in the medical school



KENYA CONNECTED

GLOBAL MEDICINE REBOOT BY MICHAEL AUBELE

his fall, fourth-year Pitt Med students Amani Davis and Vanessa Murray spent a month working with frontline health care professionals in Kenya—from roughly 7,500 miles away.

For the new elective, Global Telemedicine with the Addis Clinic (www.addisclinic.org), Davis and Murray began their days at 6 a.m., Pittsburgh time, logging on with clinical officers in Kenya, who assisted the med students as they interacted with a patient, performing a history and limited physical exam. In the afternoons, the students presented each daily case and clinical reasoning to faculty here, working to create a plan for an additional workup or case management before sharing it with the clinical officer back in Kenya. The course is codirected by physicians Thuy Bui, associate professor of medicine and director of the Internal Medicine Track in Global

Health and Underserved Medicine, and Peter Veldkamp, associate dean for global health education.

The Kenyan health care team treats everything from newborn needs to adult cancers. "They really do see it all," Murray says, including illnesses not commonly encountered in the United States, like malnutrition and parasitic infections.

For both students, the class was a much welcomed way into global medicine. Says Davis, "I have been trying to make an international learning experience happen, but with COVID, those plans have fallen through."

Murray, who has spent time abroad in Mexico and Guatemala, says, "We've built very rewarding relationships with the providers in Kenya. Everyone was super-open to teaching us how they do things."

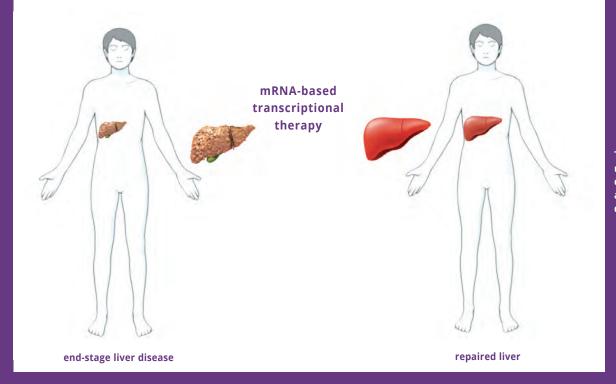
Pitt cardiologist and professor of medicine

Stephen Chan launched the Addis Clinic as a volunteer 10 years ago while he was a clinical and research fellow in Boston.

"It was our hope that our endeavors would not only improve our patients' lives but also inspire the next generation of health care providers here in the United States to care for and connect with those persons most vulnerable in the developing world," he says.

Davis notes: "I hope that I can be part of a group of students and doctors who are committed to the longitudinal relationships and partnerships required to actually make a difference."

Murray says that ethics and the sustainability of global health practices are important to her, and that she wants to see a level playing field. Telemedicine is a way to make that happen, she says. "There's a future, at the very least, in this platform."



The same technology used in COVID-19 vaccines holds promise as a new approach to liver disease treatment.

HEPATO-HEALING

A TREATMENT FROM WITHIN

BY MICHELE DULA BAUM

rowing up in Guadalajara, Mexico, Alejandro Soto-Gutiérrez felt helpless when a beloved uncle died of liver disease. Since then, the physician-scientist has dedicated his career to changing the odds for people facing the condition's devastating end stage, for which the only cure is a transplant.

Now, a messenger RNA-based therapy—the same technology that Pfizer and Moderna used for their vaccines for COVID-19—holds promise for liver disease treatment. This tool, says Soto-Gutiérrez, an MD, PhD associate professor of pathology at Pitt, is "changing the way we're going to treat patients in the coming years.

"I feel excited every morning."

His studies of how liver cells function—and why they sometimes fail—have taken Soto-Gutiérrez around the world. Before joining Pitt in 2009, he earned his medical degree in Mexico and completed a PhD and surgical fellowship in Japan, as well as a surgery research fellowship at Massachusetts General Hospital.

Fortunately, Pitt was home to a scientist Soto-Gutiérrez had been chasing a chance to work with for a decade: professor of surgery Ira J. Fox (Fel '85), a Pitt-trained transplant surgeon who had returned to Pittsburgh from the

rowing up in Guadalajara, University of Nebraska in 2008. Fox leads the Mexico, Alejandro Soto- Center for Innovative Pediatric Regenerative Gutiérrez felt helpless when a Therapies at UPMC Children's Hospital of died of liver disease. Since then, Pittsburgh.

At the joint Pitt-UPMC Pittsburgh Liver Research Center and McGowan Institute for Regenerative Medicine, Fox and Soto-Gutiérrez teamed up to explore the possibility of "reprogramming" failing liver cells to do a 180—in essence, to heal themselves.

In the United States, more than 12,000 people are waiting for a liver, yet only about 8,000 livers from deceased donors become available each year. About two-thirds of all living-donor liver transplant procedures in the country take place at UPMC (the system celebrated its 500th such procedure last year); still, demand for donor organs outpaces supply. The need to find alternatives is acute.

For years, Fox and Soto-Gutiérrez systematically studied livers scarred and impaired by alcohol-induced cirrhosis or nonalcoholic fatty liver disease, looking for genetic and cellular mechanisms of action that contribute to endstage liver disease.

They identified a key player called hepatocyte nuclear factor 4-alpha (HNF4a), a transcription factor (protein) that serves as a main

control panel to regulate much of the gene expression in liver cells. Fox and Soto-Gutiérrez found that cirrhotic rats with nonfunctioning HNF4a experienced liver failure.

When the team altered gene activity to re-express the protein—an approach they call transcriptional therapy—liver function came back online. They then analyzed diseased liver tissue from transplant patients and confirmed the finding in humans, as well. HNF4a, it seemed, could be key to reversing liver disease.

In a recent Hepatology Communications paper, the team described the results of taking cultured cells from failing human livers and treating them with mRNA, an approach that delivered instructions to the cells to turn HNF4a back on. The treatment worked, and fast—function returned in about 24 hours.

"What we're talking about, essentially, is a new approach . . . that might bring patients back from terminal liver failure," says Soto-Gutiérrez, explaining that, if successful, the technology could end the need for surgical transplant and lifelong immunosuppression.

"The development of these kinds of technologies in the area of personalized medicine will really make clinical trials and the development of new drugs more effective," he adds. "The change that a patient will see will be dramatic."

Fox, Soto-Gutiérrez and their associate, Alina Ostrowska, a liver-cell processing expert, have established the start-up Pittsburgh ReLiver to work with investors and pharmaceutical companies to translate these findings into clinical trials. If all goes well, Soto-Gutiérrez says, clinical trials could begin within two years.

FOR THE UP-AND-COMERS BY ELAINE VITONE

ecoming a doctor means staying in school through the 23rd grade that's the joke physician Sarah Flaherty likes to tell little kids. But for health care pros whose sights are set on leadership, even after all those years in the classroom and the clinic, there's still plenty more to learn.

Last winter, when Flaherty came on as chair of emergency medical services at UPMC McKeesport, she realized she wanted more formal training in management skills and business savvy—things that, most often, docs either learn by doing, or by heading back to school for an MBA. While the latter did sound enticing ("I'm kind of a huge nerd who would go to school forever," says Flaherty), she realized grades 24 and 25 just wouldn't be workable, given her day-to-day demands.

Luckily, as Flaherty was mulling this over, a new Pitt program was in the hopper. It's called Healthcare Leadership and Business Fundamentals (HLBF), a partnership between the School of Medicine and the Joseph M. Katz Graduate School of Business.

A four-month, 80% asynchronous course of study codesigned by faculty from Pitt Med as well as the Center for Healthcare Management and Center for Executive Education at Katz, HLBF offers professionals from across health care—nurses, pharmacists, physicians, physician-assistants, you name ittraining in leadership, team development and

foundational business skills. The curriculum is divided into four modules, each concluding with an in-person wrap-up session by lecturers from across the nation. (HLBF will offer both continuing medical education credits and 2 credits from Katz.)

Among the HLBF co-organizers and faculty members is Macalus V. Hogan, Pitt professor and vice chair of education and residency program director in orthopaedic surgery, who is an MD and an MBA. Five years ago, Hogan benefitted from a smaller, physician-only program called the Marshall W. Webster Physician Leadership Program.

"It really helped me evolve in how I worked with others and problem-solved," he says. Hogan went on to be a part of the first Executive MBA in Healthcare cohort at Katz. He looks forward to bringing a similarly enriching experience to the new program, which began in January.

Pitt is the perfect place to do this, Hogan says. "I've always said to my residents, 'Every dynamic of health care is playing out right here in Pittsburgh. Care delivery, innovation, it's all here.'

"Pitt should lead from the front, because we're living it every day."

There's room to personalize HLBF student experiences, says another co-organizer, Naudia Jonassaint, an MD and MHS who is For more information: associate dean for clinical affairs and associate executiveprograms@katz.pitt.edu

professor of medicine, as well as the Department of Medicine's first vice chair for diversity, equity and inclusion.

This can even be done for whole groups of health care pros enrolling together, she says. "We can create cohort-specific experiences, so that enrollees can apply what they're learning to a given problem."

Or, maybe you've already come up with a great solution to the problem, but now the stumbling block is buy-in.

"There's a science to bringing people through the process of thought-change," says Jonassaint. "Understanding what the dynamics are, and how you use those dynamics to create a shift in group think, is really important." (She adds that Katz's David Lebel, PhD associate professor of business administration, will be just the person to teach it.)

One thing Flaherty's looking forward to as she heads back to school is learning how best to support a diverse physician workforce. Most of the docs on her staff are either early career or later career; she's one of very few in the middle:

"These groups have very different needs. I'm hoping I can maximize what's helpful for each of these populations. Medicine is a team



Ionaissaint

Freddie Fu received the highest honors from orthopaedic societies on every continent except Antarctica.

"Freddie Fu was truly an international superstar in orthopaedic surgery. He was known and loved throughout the world."

—Anthony Romeo

"He cared like only family would. It is family who knows us best and can show us the mirror to help humble us in the most honest ways."

—Ronald Navarro

"I know they named a [sports medicine center] after this guy. But they should name the whole city after him."

— Anthony "Goose" Siragusa

"He could see what we were capable of far before we could see it for ourselves. He would ask us to do the impossible, knowing that he was not asking too much."

—Gloria Beim

"I practice medicine with unconditional love."

—Freddie Fu







Freddie Fu (center) and his parents (right), with mentors Albert Ferguson (former chair of orthopaedic surgery at Pitt) and Louise Enequist Ferguson on a visit to the Ferguson farm in 1992.

ORTHO GIANT FREDDIE FU CHANGED **SPORTS MEDICINE**

Freddie Fu (MD '77, Res '82), long-time chair of the University of Pittsburgh Department of Orthopaedic Surgery, died on Sept. 24, 2021, at age 70. He was the center of a thriving sports health community, a much-beloved mentor and a fixture of Pittsburgh.

"If anyone could come close to perpetual motion, it was Freddie Fu," said Anantha Shekhar, Pitt's senior vice chancellor for the health sciences and John and Gertrude Petersen Dean, School of Medicine. "Dr. Fu was always learning, thinking, teaching, doing something to make life better for his patients, trainees and the community."

Born in Hong Kong, Fu came to the United States to attend Dartmouth College and earned his MD from Pitt. After interning in Rhode Island, he returned to Pittsburgh and would spend more than three decades as the head team physician for Pitt's Department of Athletics and found the

School of Medicine's sports medicine program in 1986. In 1998, he was named the David Silver Professor and Chair of Pitt's Department of Orthopaedic Surgery.

Fu left an indelible mark on Pittsburgh—and a visible one when he helped conceptualize and design what's now known as the UPMC Rooney Sports Complex on the South Side. In 2018, the complex's medical building was renamed the UPMC Freddie Fu Sports Medicine Center.

He received hundreds of awards and honors from professional societies and colleagues. In 2016, the Pittsburgh City Council declared Sept. 13 "Dr. Freddie Fu Day." He treated both elite athletes and weekend warriors, including members of professional sports teams from Pittsburgh and around the world, high school football players and ballet dancers.

In his pursuit of improving ACL surgery techniques, Fu studied fossils, tracked down models of early hominids and even cared for a mandrill monkey who was experiencing knee pain. The result, his "double-bundle" knee repair technique, reflected a more complete understanding of how human knees work.

A study in the Orthopaedic Journal of Sports Medicine found that Fu published more of the top-100 cited papers on ACL reconstruction than anyone else, along with completing the surgery on thousands of patients.

Fu was particularly proud of his role as an instructor and went out of his way to celebrate students' successes: He and his wife, Hilda Pang Fu, sponsored and hosted the 2018 White Coat Ceremony celebrating first-year Pitt Med students, and each year since led the class in reciting the Hippocratic Oath.

Fu mentee and former colleague Robin West (Fel '03) was one of many to share stories of his energy, enthusiasm and warmth in a feature in Pittsburgh Magazine (which named him 2021 Pittsburgher of the Year). "Even though he's talking a mile a minute and running around and multitasking, he made everyone feel like they were the only one in the room," West said. "He made all his patients feel like they were professional athletes."

In a UPMC video, one tribute signed, simply, Josephine, recalled: "He was compassionate and caring, with a great sense of humor. He made me laugh when I wanted to cry." —Adapted from a Pittwire report by Patrick Monahan

To give to the Fu Family Legacy Fund: kraigsmith@pitt.edu To read our 2010 cover story on Fu: pi.tt/wobblyknees

FU DEGREES

Physician leaders in prominent sports or trained under the late Freddie Fu at

PROFESSIONAL AND **COLLEGIATE SPORTS**

MEDICAL DIRECTORS/

LEAD TEAM PHYSICIANS Answorth Allen, New York Knicks, USA Basketball Christina Allen, Yale University, US Soccer Christopher Annunziata, Washington Commanders Neal ElAttrache, Los Angeles Rams, Dodgers Geoffrey Baer, University of Wisconsin Michael Baraga, University of Miami Gloria Beim, United States Olympic and Paralympic Committee, Team USA Craig Bennett, University of Maryland Jim Bradley, Pittsburgh Steelers Jeremy Burnham, Southern University George Caldwell, Miami Dolphins Kevin Coates, Wake Forest University basketball, Winston-Salem State University Steve Cohen, Philadelphia Phillies Brian Cole, Chicago Bulls Alexis Chiang Colvin, USTA Jeanne Doperak, Saint Vincent College Pat Greis, University of Utah football Kyle Hammond, Atlanta Falcons, Hawks Darren Johnson, University of Kentucky Deryk Jones, New Orleans Saints Lee Kaplan, Miami Marlins, University of Miami Bryan Kelly, New York Rangers Scott Kling, Christopher Newport University Bryson Lesniak, Carnegie Mellon University Albert Lin, Duquesne University Aaron Mares, Pittsburgh Steelers (head primary care physician) Paul Marks, Toronto Raptors Melissa McLane, Carlow and La Roche universities Michael Miao, Las Vegas Raiders

Mark Miller, James Madison University

Volker Musahl/Elizabeth Herrman/Jonathan Hughes, University of Pittsburgh football

Thierry Pauyo, Montreal Canadiens Matthew Pepe, Philadelphia Eagles Matthew Pombo, Emory University Marc Safran, Stanford University Carola van Eck,

Robert Morris University Dharmesh Vyas, Pittsburgh Penguins Robin West, Washington Nationals John Xerogeanes, Georgia Tech Erol Yoldas, Miami Dolphins



PHOTO OF FU: COURTESY FU FAMILY. KNEE: GETTY IMAGES.

"WHAT EXACTLY DO YOU MEAN BY

THRIVE?"

A PARTNERSHIP THAT DIGS DEEP TO LIFT
PITTSBURGH KIDS | BY GAVIN JENKINS

PHOTOGRAPHY | AIMEE OBIDZINSKI/
UNIVERSITY OF PITTSBURGH, EXCEPT WHERE NOTED

everend Paul Abernathy has heard the story so many times that he can tell it as though he'd been there: Many years ago, a team of researchers studied the effects of adverse childhood experiences among Black residents in Pittsburgh, and they presented their results at a crowded church. Excited to share their work, the researchers delivered a slide presentation with graphs and charts that explained the consequences of childhood trauma.

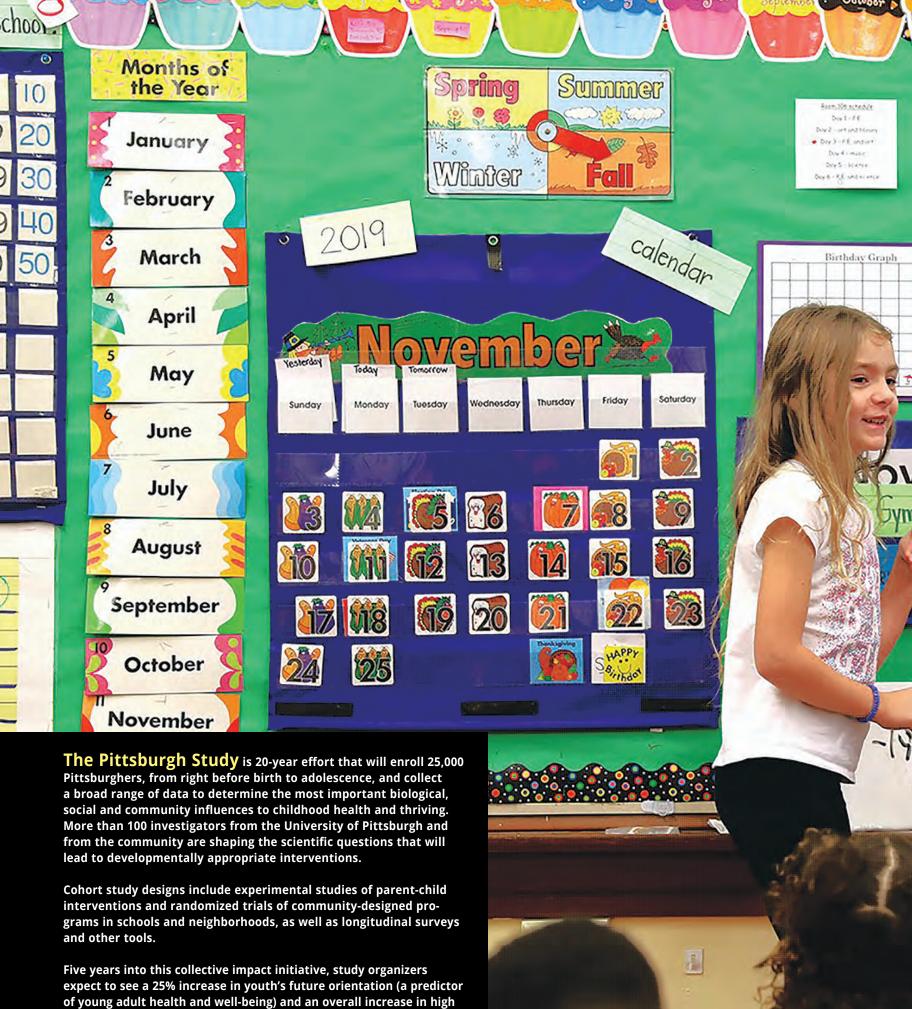
However, the researchers hadn't engaged deeply with members of the community while gathering the data. For most of the Black people in the crowd, this was the first time they had seen these White academics, who were uttering words about their children like "at risk" and "mental health problems" and "juvenile justice system."

As Abernathy tells it, at the end of the presentation, a woman raised her hand and said: "So, you're saying we're all messed up."

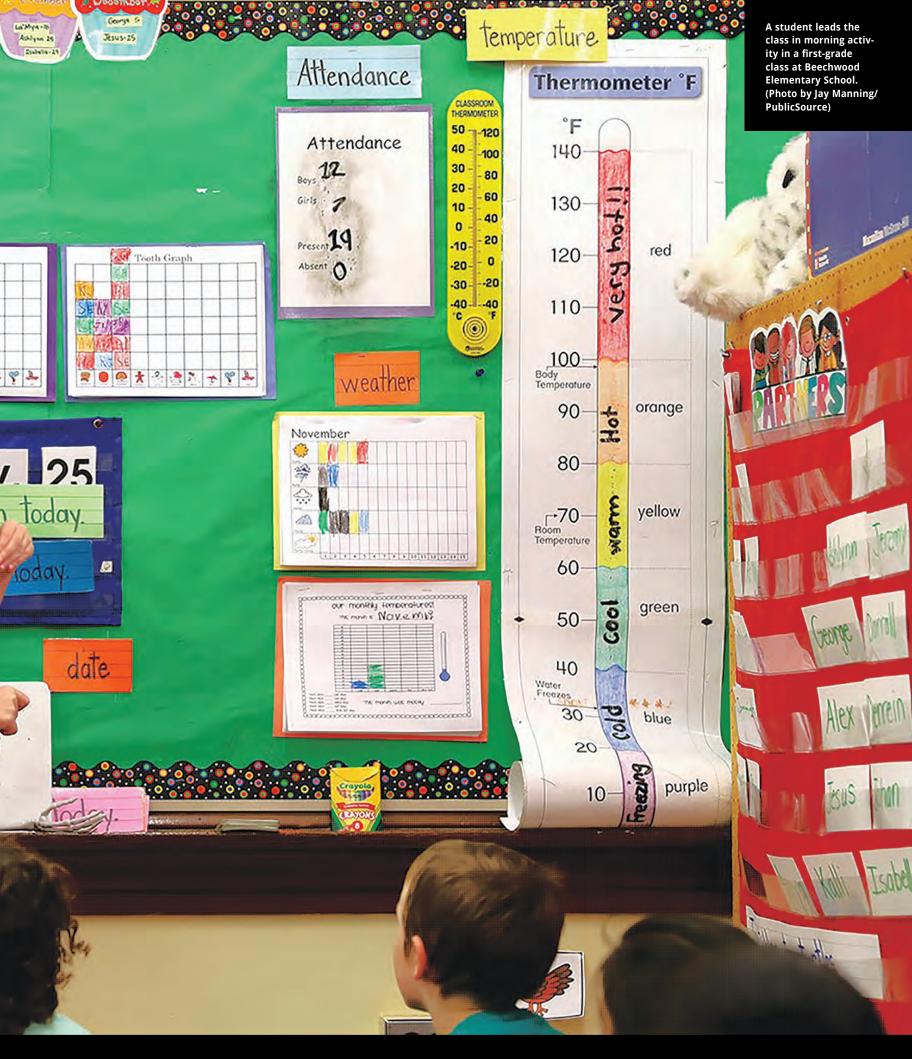
That's how the presentation came off, says Abernathy. "It was: 'You people have been through so much trauma that you're all screwed up."

Abernathy, who leads the congregation at Saint Moses the Black Orthodox Christian Mission in Pittsburgh's Hill District, says this anecdote is widely shared in the city. And it demonstrates that how researchers approach a study can undermine efforts to help a community.





school graduation rates. The big goal: Find out what factors help children thrive in Allegheny County and address root causes of inequality.



Val Chavis has been instrumental in shaping the Pittsburgh Study.

The Pittsburgh Study, which aims to find out what factors help children thrive in Allegheny County and address root causes of inequality, has been structured to avoid the mistakes of past research projects. The team consists of well over 100 community members and 73 academics, with cooperation from 16 area school districts and several nonprofit organizations like the Neighborhood Resilience Project (which Abernathy leads), as well as support from Children's Hospital of Pittsburgh Foundation, the Grable Foundation, the Heinz Endowments, PNC, the University of Pittsburgh and the Shear Family Foundation.

Initiated by Terence Dermody, Vira I. Heinz Distinguished Professor and Chair of Pediatrics, and Elizabeth Miller, Edmund R. McCluskey Professor of Pediatric Medical Education, the Pittsburgh Study plans to recruit between 20,000 and 25,000 participants from Allegheny County in the next two decades.

It's the largest community-partnered intervention study following children (and their families) from before birth to adulthood. The study develops and tests interventions at various developmental stages.

Studies of this variety often receive feed-back through community advisory boards, but that kind of engagement doesn't go far enough, says Miller, who also serves as director of the Division of Adolescent and Young Adult Medicine at Pitt and UPMC Children's Hospital of Pittsburgh.

"We wanted community members engaged in the science," Miller says. "We flipped the script and invited people who would have been community advisors to be citizen scientists."

Dermody, physician in chief and scientific director at Children's, chose Miller to lead the study from the academic side because she has more than 20 years of experience in community-partnered research. She's an international expert in this field, he says. "Her work with young men to prevent intimate partner violence has been copied all over the country."

Miller asked Val Chavis, with whom she had collaborated previously, to colead from the community side.

At the time, Chavis was the project director of the Urban League of Greater Pittsburgh East Hills Family Support Center. She'd also taught Pitt Med and Public Health students about how racism permeates health care, eroding wellness.

Chavis joined and influenced the study immediately. In August 2018, Chavis, Dermody, Miller and several other researchers were meeting at Children's to discuss how to get the study started.

Chavis sat next to Dermody at a long, wooden table in a conference room and listened as he explained how the study would identify the most important determinants of a child's thriving.

Chavis interrupted: "Why did you use the word 'thriving'? And what exactly do you mean by 'thriving'?" She suspected that the meaning of the word probably differs from household to household.

"We went from talking about the word 'thriving,'"Chavis recalls, "to talking about taking it to the communities and asking people, what does 'thriving' mean for their family? Their community? For Allegheny County?"

Miller calls it a powerful moment. "It really opened up the possibility to host listening sessions using a pretty systematic approach."

Chavis and Miller visited groups of people in the East Hills, Sheraden and Hazelwood—geographically distinct neighborhoods with concentrated poverty—to examine the definition of thriving.

It helped the study organizers enormously, says Miller: "We really started to think about what we need to measure."

Published in Academic Pediatrics, the results were called the Child Thriving Matrix, a framework for understanding child thriving, using the words of community members. Participants included 91 community members, health care and social service professionals, and researchers.

When children are comfortable in their own skin. When they have someone to talk to. When they have pride in themselves and a strong sense of self-worth. These attributes and more were seen as key to whether a child would thrive. (See sidebar for full list of clusters the participants identified.)

The Child Thriving Matrix served as a guide for how Miller and Chavis structured



the Pittsburgh Study and built its team. The study is organized into two types of collaboratives: age-based collaboratives and cross-cutting collaboratives. The age-based side of the study focuses on five stages of development: pregnancy, early childhood, early school age, middle childhood and adolescence. The adolescent stage has two sub-cohorts: middle school and high school. Like the overall study, each cohort has an academic coleader and a community coleader.

The cross-cutting collaboratives examine what actions can be taken to improve lives. Those cohorts investigate a wide range of questions including, Why aren't Black children receiving the same health care as other children? How can that be made equitable? And how can we best share relevant data with the public?

In 2019, Chavis was recruited as the service and outreach coordinator for Pitt's Center for Parents and Children. She continues to work on the Pittsburgh Study. Felicia Savage Friedman—founder of YogaRoots on Location, based in Pittsburgh's East Liberty neighborhood—has replaced Chavis as the Pittsburgh Study's community codirector.

REVISE, REFINE

Working iteratively and collaboratively has been a common theme for the Pittsburgh Study.

For instance, at the beginning of the pandemic, leaders of the Pittsburgh Study Early Childhood Collaborative got together and composed drafts of a consent form and questionnaires to begin recruitment.

Chavis says with the assistance of community members, the collaborative learned that the proposed consents and questionnaires were too long and had words that might not even be understood. "People would read it, see certain words and then think, 'I'm not answering that question."

Sometimes, the way the question was framed would completely throw people off, says Chavis. "We even had to take a look at the length of the consents and questionnaires and how this may impact new mothers." They realized that some might conclude, "'I have a newborn; I don't have 30 minutes to sit here and do this,'" Chavis adds.

Also, the surveys that were intended for new

mothers missed something. The first thing the researchers should do is acknowledge the major life event of welcoming a child into the family, Chavis says. The community cohort members urged their academic counterparts: "Be nice and congratulate them."

Between navigating the survey revisions and inspiring the Child Thriving Matrix, Chavis seemed like "an angel who descended from God in heaven to help us with this work," says Dermody.

Chavis credits Miller and Dermody for creating a comfortable environment where everyone feels heard. "It's really a conversation that most people would never have with doctors, scientists and researchers."

WHAT'S THE MESSAGE?

The episode in the church that Abernathy shares shows how researchers can send the wrong messages to communities.

Researchers want to contribute to a canon of knowledge that helps people, according to Jamil Bey, founder of the UrbanKind Institute, but that may not be what gets remembered. He says, "Very often it looks like you're the bad guy for being a poor person in that neighborhood. 'Here's what you do. You're the problem; we're studying you.'"

Bey, who has a PhD in geography and is community colead for the Policy and Place collaborative and on the leadership team of the Pittsburgh Study, wants to see action fueled by research. His team is focusing on the policies and institutions that can improve the welfare of children so that they achieve their academic goals.

He says community studies often boil down

to a triangle: Researchers and the data they collect are in one corner; the members of the community and what they need to thrive are in another; policymakers are in the other corner.

"Very rarely do they work together," Bey says. And that's one reason he's hopeful about the Pittsburgh Study.

He'd like to see the Pittsburgh Study dren thrive."

answer the question, "How do we have a broad conversation to shift the focus from short-term thinking on single issues to thinking about the connectivity of all these issues?"

Dermody is optimistic. "Everyone in the country will know about the Pittsburgh Study when we're done," he says. "We're excited about working together to help children thrive."



Elizabeth Miller (in glasses): "Historically, the focus has been on educating communities—'fixing' their mistrust—as opposed to turning the mirror onto ourselves [as professional scientists] and saying, 'What is it that we need to do to be more trustworthy?'" (Photo courtesy UPMC.)

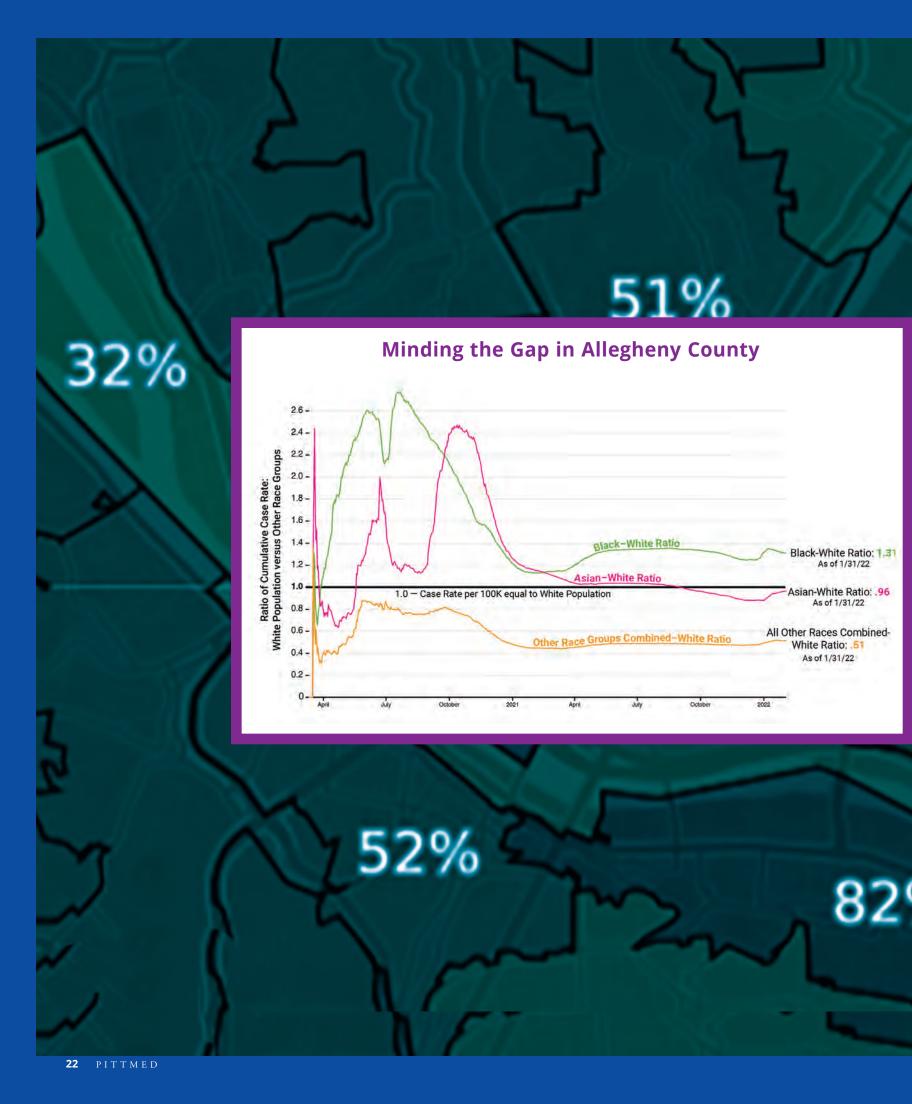
BRAIN CHILD

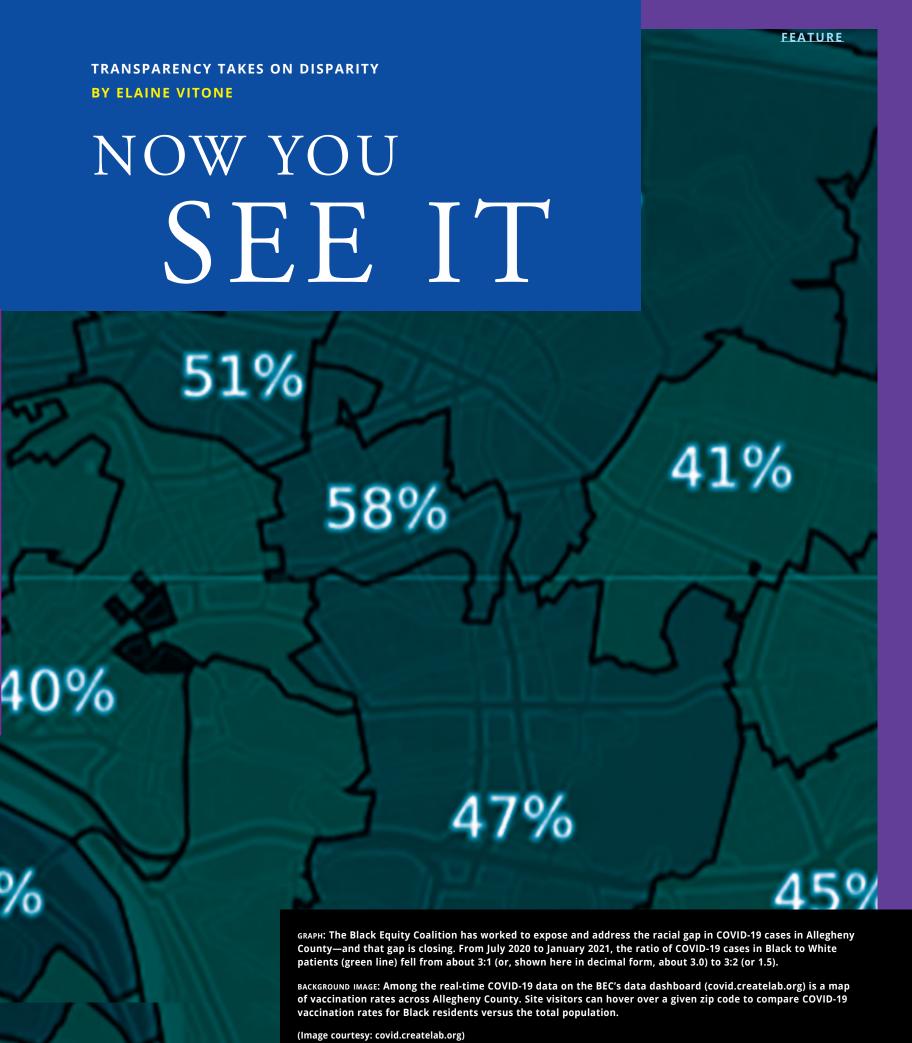
For many days and nights, in many online sessions, nearly 100 health care and social service professionals, researchers and members of overburdened Pittsburgh communities came together to help chart the course of the Pittsburgh Study. In a series of brainstorming sessions, they sorted and rated interpretations of what it means for a child to thrive, coming up with eight distinct clusters associated with the word:

safety * strong minds and bodies * positive identity and self-worth * healthy environments * vibrant communities * caring family and positive relationships * fun and happiness * racial justice, equity and inclusion

Community members were more likely to name "safety" as a prerequisite for thriving than researchers were. They also ranked "fun and happiness" as more important to child thriving than did researchers.

Pitt's Anna Ettinger, a PhD research assistant professor of psychology, Val Chavis, Elizabeth Miller and others published the results in the January/February 2021 issue of Academic Pediatrics; the researchers refer to their findings as the Child Thriving Matrix. The matrix and the associated measures of thriving will serve as touchstones as the researchers continue to partner with community members to figure out how to help get families and kids the support they need to thrive. -GJ





n the early days of the COVID-19 crisis, jaw-dropping data began trickling out from across the country. "Cities like Milwaukee and St. Louis were saying 75 percent of people dying from COVID-19 were Black," recalls Pitt's Tiffany Gary-Webb, a PhD, MHS associate professor of epidemiology in Pitt Public Health.

Concerned about the COVID-19 death rate for Black Pittsburghers, Gary-Webb and a group of scholars in her sphere reached out to public health officials. "We said, 'What are the rates in our area?" The answer from the Pennsylvania Department of

Health and the Allegheny County Health Department was, essentially, "IDK." These data were not available to the multiple of the time.

able to the public at the time.

But this was no shrugging matter. Data are the bread and butter of informed policy and targeted interventions, matters

of life and death in a pandemic. So, in the ensuing weeks and months, Gary-Webb was part of a collegial huddle working together to put pressure on public health officials. Ultimately, that pressure resulted in the release of those data, warts and all.

Gary-Webb

Then, they got to work on the warts—or, rather, the gaps.

This was just the beginning for what's now known as the Black Equity Coalition (BEC), a predominantly Black collective of epidemiologists, social scientists, health care providers, CEOs and assorted data dynamos representing universities and community organizations across Pittsburgh.

The BEC conducted its own analysis of the data and identified weak links in reporting—specific health care providers that, unfortunately, were driving most of the gaps. "We had conversations about improving the information on race and ethnicity at the state level with Dr. [Rachel] Levine," (then-secretary of health for Pennsylvania), Gary-Webb says. It was this advocacy, the BEC believes, that led to a much stronger health advisory in December 2020 regarding the inclusion of race and ethnicity data in demographics provided with COVID-19 test results.

Through each iteration of the evolving COVID-19 crisis, BEC has continued this pattern of coordinated data-crunching, network leveraging and sustained advocacy. "We're calling it data-to-action," says Gary-Webb.

At the start of the vaccine rollout, BEC pointed out a grave flaw in the policy approach. Black residents of the county are younger on average than White residents, the coalition noted in a statement, and older residents were vaccine-eligible first. "We at that time saw higher rates of hospitalization and deaths for Black residents at younger ages," Gary-Webb says. Further compounding this inequitable approach, a disproportionately high number of frontline health care jobs are performed by Black residents. (Unfortunately, the inequity stood until the state opened up eligibility more broadly.)

When COVID-19 testing sites began appearing, local health plans chose sites well outside of city limits, far from Pittsburgh's Black neighborhoods. Working in partnership with Pitr's Western Pennsylvania Regional Data Center, Gary-Webb and her fellow BEC data committee members prepared a report examining Black population distribution, existing testing site locations and sites that they suspected could be extremely valuable in the race to ramp up testing: federally qualified health centers (FQHCs). This deft deployment of data led to a change for the better.

The county health department has since rolled out testing at all FQHCs.

Today, the Allegheny County Health Department website shows testing and case data by race. And on BEC's public dashboard, data visualizations of deaths, cases, hospitalizations, tests and more provide a bird's-eye view of disparities and how they change over time. Though there's work to do, the data hold encouraging news: The racial gap in infections is closing.

"We can see the impact [of our work] on communities. We can see changes in real time," says Gary-Webb.

What it took to get to this point is a story of elbow grease and what's possible when a powerhouse collective of more than a dozen executive leaders, health care providers, researchers and community stakeholders join forces.

It's a cautionary tale, too, on the importance of transparency as a means of checks and balances.

And ultimately, it's also a case in point that representation matters. Before BEC stepped in, "People weren't open to knowing we had disparities," says Gary-Webb.

The BEC includes a host of Pitt people: Tracey Conti, an MD and newly appointed chair of family medicine; Richard Garland, MSW assistant professor and director of the Violence Prevention Project at Pitt Public Health; Noble A-W Maseru, PhD, MPH professor of public health practice and director of social justice, racial equity and faculty engagement for Pitt health sciences; Dara Mendez, a PhD, MPH assistant professor of epidemiology and of behavioral and community health sciences; and Pitt Med alum Jerome Gloster (MD '92), chief executive officer and chief medical officer for Primary Care Health Services, a system of 10 federally qualified health centers across the Pittsburgh area.

Initially, BEC gathered around the goal of ensuring Black and Brown communities in the county would receive accurate and reliable information about COVID-19. They quickly realized what they were building was something bigger: a forum to tackle health inequities, writ large.

"This has been very fulfilling," says Gary-Webb.



SHARE

AND SHARE ALIKE

IT'S THEIR DATA, TOO
INTERVIEW BY ELAINE VITONE

f you volunteer for a research study, typically, what you walk away with is a bit of cash in your pocket, and that's about it. The researchers, however, gain data, the stuff that scientific discoveries are made of. Even though it is, after all, *your* data—your blood samples, your survey responses, your time and trouble—sharing study data with volunteers is generally not the default.



"But it absolutely should be," says Mylynda Massart, an MD, PhD assistant professor of family medicine and core director for engaging special populations at Pitt's Clinical and Translational Science Institute (CTSI).

She acknowledges: It is hard. "Return of results," in scientist parlance, creates layers of additional work (including institutional review board approval). All that added staff time means added costs, too. And with sensitive information like genomics, there are many more layers still.

So yes, it's hard, Massart says—but it's worth it.

"We use this word, reciprocity," she explains, the idea being that research is really a partnership, and participants truly are partners. "We are in an era where trust is very fragile, and for valid reasons. We need to earn that back, and reciprocity is a way to do that."

Massart and her CTSI colleagues are engaged in what may be the largest-ever undertaking in research reciprocity. The All of Us study, as it's called, is a historic effort to create a cohort of 1 million people. It's the centerpiece of the National Institutes of Health's Precision Medicine Initiative.

Each study volunteer's genome will be sequenced and, if the participant wishes, these data will be shared with them. ("The optin part is important," Massart stresses.) The years-long process of laying the study's groundwork—which includes a network of genetic counselors to help participants understand what certain genomic testing results mean for their health—has been no easy feat.

Recently, Pitt Med talked with Massart about the tradeoffs and triumphs of reciprocity, a new research model for which she and her All of Us colleagues hope to set the gold standard. "Success is a strong motivator" for other scientists to board the return-of-results train, she says. "If we succeed in doing this for a million people across the country, that's gonna be huge. People are gonna say, 'How did they do that?"

When you say research should be a "partnership," what does that mean, exactly?

can have many different forms. Historically it's just been financial compensation, but now we're recognizing that there's actually huge value in returning results to participants, because they get to learn about themselves. And it turns out we are interested in ourselves. These are like our medical selfies.

Are there resources you can recommend for researchers who are interested in adopting this model in their studies?

Having gone through this process here at Pitt, we [CTSI] would be able to provide guidance for anyone consulting us. And the NIH's National Human Genome Research Institute now has a website for return of research results.

What would you say to researchers who are hesitant to go this extra mile in returning results to participants?

Engagement is worth it. And especially long-term engagement. If you're asking someone to participate in something over time, we should have ongoing return of value. We need to stop expecting that we can do research without it. We're sitting in our academic ivory towers, thinking everyone is going to think our research is so important, and come running in to sign up? That's just not logical. People are busy.

Tell me about the ethical component to this.

In graduate school I was in a study where I was a normal control for a brain. I did two brain MRIs a year apart. And they were not obligated to tell me if they had found a brain tumor or not. My brain, my MRIs, right? Is that really ethical? As scientists and clinicians find something, especially something that could be intervened on and change the outcome, don't we have a moral obligation to inform that patient?

Also, can we engage patients and understand their social determinants of health and their needs that may not currently be met, and then match them with supports? That is also returning value. If you participate in a research study, and I learn that you don't have a primary care provider, can we connect you with one?

There should be value exchanged, and value If I find out that you don't have food, can I connect you to a social worker who can help you complete the application for food stamps? People are starting to recognize that we actually do have a moral obligation there, too.

What's your wish list for the way forward?

Hopefully in the future we will start seeing grant opportunities actually require [return of results]. There's momentum there.

I hope folks are starting to think: What value am I giving my research participants? Yes, I'm paying them, but is that money actually respectful and meaningful? And I hope that, early on, [researchers] are engaging community members representing their target populations and asking that question: What is valuable to you and your community members? Or your family? Is it \$100, or is it something else?

What are some examples of what that might look like?

Maybe it's having a social worker at the recruitment site who can help provide access to resources. Or maybe community members are saying, We need more community gardens. Well, let's find some community gardens. Or: We don't have enough nurses in our public schools anymore; so when someone gets hurt on an off day, they go to the school office. Well, [let's help find a nursel.

It's about having the dialogue to learn what the value is, and then returning that. It doesn't have to start with returning genomics. It can truly be our time, our knowledge, our support,

We have this community vaccine collaborative [at Pitt]. We are engaging with community groups, and our return of value is just being there for people. Just saying, "If you have a question, you can message me. And then you're not having to call 16 operators and hope someone gets the message." So that when something happens, they think, "Oh I'm going to call Dr. So-And-So at Pitt. I'll have an answer for us tomorrow." That's the space that Liz Miller is really trying to get folks to recognize. [See page 16.]

It's the whole lasting relationship. The whole give and take.



WHAT'S YOUR **EMERGENCY?**

SURPRISING REASONS FOR MOST PARAMEDIC CALLS— AND A BETTER WAY TO ANSWER THEM | BY ELAINE VITONE

PHOTOGRAPHY | TOM ALTANY/UNIVERSITY OF PITTSBURGH, EXCEPT WHERE NOTED

n 2016, a health care team at St. Clair Hospital was prepping to send home a patient, we'll call him Mr. Lee, after a three-week stay.

And they had a bad feeling about it.

Lee, who was recovering from back surgery, was incredibly slow to heal for reasons no one could decipher. He was in his 50s and lived alone, and the team sensed that there was probably more to his story, but no one could coax it out of him. As they gave him his walking papers, the doctors and nurses who'd cared for him 'round the clock for weeks had a sinking feeling he'd be headed back there soon, in an ambulance.

So the team did something a bit out of the box: they called the ambulance first.

That's how Heather Bogdon, a unique breed of health care professional called a community paramedic (CP), came to Lee's door.

In addition to the traditional, 1,000-plus hours of medical training befitting a paramedic, Bogdon brought to the case a wealth of knowledge about social and other factors that play a part in health—including the trauma of living in communities plagued by violence, the ability to navigate social support systems and expertly honed listening skills.

Bogdon's role is a reimagining of a profession originally designed for emergency care and transport to the hospital. In contrast, the CP's job is to help keep people from needing to go there in the first place, or from boomeranging back after discharge.

Lee had been a closed book in his patient room. But here in his living room, it was different. Using a delicate skill known as motivational interviewing, Bogdon ticked down a long list of questions—open-ended, get-to-know-you questions—to get a holistic picture of his well-being.

And that's when Lee opened up.

His wife had recently died, he told Bogdon. Then, he hurt his back in an accident that had also totaled his car. With no way to get to work, Lee lost his only source of income.

Bogdon asked what kind of food he had in the house.

"And he takes me in his kitchen and opens his refrigerator," she recalls. "And I'm not kidding you. All he had was a bottle of ketchup." For several weeks before his surgery, he'd been diluting it to make tomato soup.

Bogdon was floored. No wonder his surgical wound wouldn't heal. His electrolytes were shot.

So now, here he was, alone and unable to take more than a few steps—no car to get him to the store, and no money to pay for anything there anyway.

"I'm like, 'How are you going to recover from surgery?' And he's like, 'I don't know.""

When we think of 911, we typically picture someone calling because of strokes, heart attacks, accidents and the like. That is indeed what the system is designed for.

But in reality, upwards of 80 percent of the time, the crises behind these calls aren't medical—they're social: Hunger. Loneliness. The terror and absolute desperation of staring down homelessness.

"They don't know who else to call," says Dan Swayze, a former adjunct instructor in Pitt's School of Health and Rehabilitation Sciences who has studied the emergency-care workforce inside and out for decades.

Typically, EMTs and paramedics, for all their extensive biomedical training, don't know how to address the root causes of many of their calls—which is a recipe for burnout, Swayze says.

"From [paramedics'] perspective, people are misusing or even abusing the 911 service—when in fact, these patients are vulnerable."

To address these mismatches, Swayze and

Pitt colleagues began developing the CP model in 2003. A decade later, a grant allowed them to hire paramedics to do this work full time. Today, CONNECT's 11 CPs serve Allegheny County in what is probably the longest-running community paramedic program in the United States. It has served as a model for similar programs across the country, which now number more than 400.

CONNECT assists patients in finding resources and advocates for them in securing assistance for medical, housing, utilities, mental health and social support needs. They do all these house calls free of charge. Apart from location within the county, their only criterion for referral is, by design, vague: If a patient is vulnerable, and you're worried about them, give CONNECT a call.

Since the program's launch, readmission rates, patient care and patient outcomes for program participants have steadily improved. For example, over a two-year period (2013 to 2015), in which CONNECT helped 269 patients across Allegheny County, the program saved an estimated \$1.8 million in health care costs. That was an average of \$6,900 per patient.

wayze is former chief operating officer of the Center for Emergency Medicine of Western Pennsylvania, a nonprofit dedicated to emergency medicine research, education and care. (You've likely seen them at work in the skies over Oakland. The center's clinical arm is STAT MedEvac, the air medical transport, of which Pitt's Frank Guyette, professor of emergency medicine, is medical director.)

Founded by Pitt's first emergency medicine residency director, Ron Stewart, the center was instrumental in developing the national standard curriculum. Center organizers helped design a BS degree in emergency medicine in Pitt's School of Health and Rehabilitation Sciences; it's the University's most popular pre-med program.

Swayze traces the first germ of the idea for CONNECT back 20 years. He and Paul Paris, then-chair of emergency medicine at Pitt, were lamenting the fact that EMS providers in general were underpaid and really not appreciated for their clinical skills. And further, that their organizations were compensated via incentives Swayze calls "perverse." That is: They're only paid when they take someone to the hospital.



Once they got help for Williams' dog, he let them help him.

So in the early 2000s, the pair started chatting up ambulance services across the area. They wanted to know: If you got compensated for it, would you be open to doing things outside of your traditional job description? Upstream, big-picture things like disease management and injury prevention? And their answer was: Absolutely.

In 2003, a \$150,000 RK Mellon Foundation grant seeded the research and development of the CONNECT model (initially known as Emed Health). In time, both Swayze and the CP program moved to UPMC Health Plan, where he's now vice president of Community Services. Bogdon oversees the day-to-day operations as CP supervisor.

In this era of staffing shortages and exhaustion, Swayze stresses that the center's research has shown the importance of keeping health care professionals working at the "top of their scope." That is, keep nurses doing what they're trained to do as RNs, physicians as MDs and so on. Because when there's a mismatch, "that's a dissatisfier," Swayze says.

However, expanding training for paramedics so they can become community paramedics, he says, better aligns their skill set with the boots-on-the-ground reality. Because keeping the Mr. Lees of the world out of the hospital has never truly been in anyone's scope at all.

For instance, once patients leave the hospital—"[Hospital social workers] can't possibly follow up on everyone," says Swayze. And so it's: "Here's the number to call and the application to complete—I can't do that for you. You'll need tax records—I can't gather those up."

But a community paramedic is right in your living room. They can help you hunt for those documents, assist with the paperwork for food-stamp benefits and follow up to make sure you're okay.

And, during the wait for those benefits to come together, CONNECT can bring you a 30-pound box of shelf-stable food that very day. As part of a partnership with the Greater Pittsburgh Community Food Bank, CONNECT keeps a whole fleet of these care packages, dubbed Thrive Boxes, at their offices, ready to go at any time. Since 2017, the program—which was created by Bogdon and inspired by Mr. Lee—has delivered 3,000 pounds of food throughout Allegheny County and served as a model for CP services across the country.

n average, CONNECT's patients are 65 years old and have not one, not two, but three chronic illnesses. Seventy percent have at least one mental health issue. And on average, in the year prior to CONNECT reaching out, patients have been to the emergency department seven times, and readmitted five.

To meet the demands of these complex cases, the center and Pitt came together to design a 10-week program known as CONNECT Academy. Trauma-informed care and approaches, taught by CONNECT training coordinator London Kimbrugh, are central to the curriculum.

Community paramedics-in-training learn the finer points of an extremely detailed intake process, which typically takes upwards of an hour. At the end, they're trained to present a menu of possible areas to address, then ask the patient, "What do you want to work on—and what's the most important thing to you?" Then they partner with the patient to come up with a plan that's made to order. Check-ins continue until CONNECT's services are no longer needed. "We say, Let's do this on your schedule," says Bogdon. "Let's do this based on what you say you want to do, and I'll follow your lead. We try to be very respectful of that."

Tom Platt is associate professor of emergency medicine and director of the emergency medicine program in the School of Health and Rehabilitation Sciences as well as a faculty member at the center. When he looks to the future, he hopes to see something like what the fire service is now. "They're doing a pretty good job of putting themselves out of business with sprinklers and building codes and all those kinds of things," he says. "They don't spend a lot of time on fire suppression. They spend a lot of time on fire prevention."

Say you're a congestive heart failure patient who's been discharged after a close call. A CP can swing by, not only to do the usual medical upkeep to periodically check your weight and vitals, but also to make sure you're doing all you can on your end to fend off another potentially fatal fluid buildup. Are you taking your diuretics? Are you going easy on the salt?

And if you're not, a CP will gently ask why.

"A lot of times," says Platt, "the person stopped taking their 'water pill' [diuretic] because they were making the decision of food on the table or their prescription."

CPs are also a great failsafe against the all-

too-common problem that comes with a long hospital stay. After multiple sleepless nights being poked, prodded, temped and blood-pressure-cuffed amid the buzzing, beeping ruckus of their room, many patients are just plain over it and will say anything to go home. Meds? Follow-up appointments? Completely overhaul diet, routine and lifestyle? Yeah, sure, anything you say, Doc!

"Patients lie their tails off about what they will do after discharge," says Swayze. "Then when they leave, they have no recollection of any of that." And it's no wonder, because a hospital is a lousy classroom: It's exhausting, full of distractions, and the "students" aren't feeling so great.

"What we try to do, then, is to say: Let's have that conversation in your kitchen, where you're more comfortable," says Swayze.

As the center has looked back at CONNECT patients over time, they've found that it was extremely common to have comorbidity of two or more mental-health issues on top of whatever else they were discharged with. Some 42% of these cases were socially isolated, elderly people with nobody to care for them at home.

"Look," says Swayze, "if you have diabetes, that sucks to manage on your own. But if you have diabetes and depression and anxiety, it's an entirely different disease to try to manage. You're always going to call 911 because you're so anxious about your ability to care for this yourself, and what your numbers are saying."

Platt is on the forefront of pushing food, housing and all the various systems of care as foundational knowledge not just for community paramedics, but for all paramedics and EMTs. "It'll lengthen the course," he concedes, "but, A, they're more employable, and B, they're better at taking care of patients and understanding why things are the way they are." To train veteran paramedics to transition into the role of a CP, CONNECT's instructors have developed an elective course. They have consulted multiple communities outside our region, in Ohio, Maryland and North Carolina.

s a whole, paramedics and EMTs are by far predominantly White and male—and yet the patients they serve are not, says Swayze.

If you know your Pittsburgh history, there is a cruel irony in this.

The country's very first EMS team, Freedom



SNAP benefits take time to pull together. CONNECT Community Paramedics not only navigate that process for patients, they deliver 30-pound boxes of shelf-stable food right away, as part of a partnership with the Greater Pittsburgh Community Food Bank.



House Ambulance Service, was mostly staffed by Black men, recruited from Pittsburgh's Hill District neighborhood in a program founded by Pitt's Peter Safar in 1967. Though Freedom House was wildly successful, after eight years, a racist political onslaught succeeded in shuttering the service, founding a new one and systematically nixing the original staff in favor of an almost entirely White team.

"If you want to eliminate health disparities," says Swayze, "you've got to diversify your workforce. And if you want to diversify your workforce, you have to be willing to step up your game."

In early 2021 the team launched an initiative dubbed Freedom House 2.0, a CP training program that focuses recruitment efforts in economically disadvantaged communities. With support from the local workforce investment board known as Partner4Work, FH2.0 covers the cost of tuition, as well as bus fare, a computer, study materials, uniform and living stipend. Kenneth Hickey, a program manager of community services at UPMC Health Plan, and Emily Lovallo, Pitt assistant professor of emergency medicine, teach the course.

FH2.0 addresses barriers of a noneconomic nature, as well, providing wrap-around services like mentoring and counseling, which, in the program's short history, have unfortunately been needed. Traumatic eventsincluding the loss of loved ones to violence are all too common during the course of students' studies.

"Life happens," says Swayze. "You have to be prepared to help students through those moments so that they don't drop out of the program."

The original Freedom House set the standard, both nationally and internationally, in advanced life support. And with its sequel, this new team hopes to do it again.

"Because guess what?" says Swayze. "The people with lived experience often are the best clinicians for the people that we're trying to help."

cross the health care professions, stress is mounting, says Swayze: "Doctors face it. Nurses face it.

"But I'd argue it's different and more intense when the relationship is based in the

Paramedics and EMTs on a patient case don't just meet the kids; they see with their own eyes that an entire family doesn't have a stove or a fridge, let alone enough food to eat.

They don't just bring medical care to a stranger on the worst day of their life; they also hear about the days that rival them, like the day a couple lost their baby.

They don't just take an emergency-room "frequent flyer" to the hospital, again; they have first-hand knowledge of the reason why the 90-year-old keeps dialing 911: Because she wakes up every day knowing she's going to die alone.

There are stories these frontline professionals can share; many more stories well up in their throats and halt in a choke. "I can't talk about that one," Bogdon says, more than once as we talk.

We've got to do a better job taking care of them," says Swayze, meaning his first-responder colleagues. "This job will mess you up."

Paramedics and EMTs sign up to put

themselves in harm's way. They often have to work two or three jobs. But they do it because they want to help, says Swayze. A common admonishment amongst the CONNECT crew is: "You can't keep reaching into your wallet to pay for things your patients need."

"That's the type of angels we're dealing with," says Swayze.

nce, Bogdon went out on a call to find an elderly gentleman we'll call Mr. Williams, an old-school host, the kind who fussed and stood up when a woman walked into a room, pulling out her chair and offering her something to eat.

Williams lived in a condemned building that he owned but would not, and could not, leave. He had no utilities, save an extension cord running from a generous neighbor's garage. He had multiple chronic illnesses, no social support, no transportation and was in and out of the emergency department all the

But when Bogdon asked him what was the most important thing to him right now, his answer was: his dog.

At Williams' side was a border-collie mix with a concerning lump on her side. Williams had no money to take her to the vet. He was so worried about her health that he couldn't give a thought to his own. She was all he had

The CONNECT crew made some calls, found a vet who'd take a pro-bono case, and gave Man and Man's Best Friend a ride to the clinic in Bogdon's colleague's pickup. Fortunately, some free samples of antibiotics cleared up the problem.

And, finally, there was hope for Williams,

"The guy was just so appreciative," says Swayze. "It was very easy for us to frame the discussion, like, 'We can tell you really love your dog. Can we talk about how to get you more stable so that you can both be around to support one another?' And, of course, he was willing to do that."

Soon after, the team finally had Williams signed up for the VA services he'd long been entitled to-preventive care in place of its poor substitute, the emergency department.

"This," says Swayze, "is how you navigate these folks to meet them where they are."



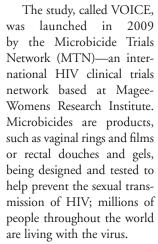
SILVER LININGS

A "FAILED" STUDY ENDS WELL BY CLARE COLLINS

n 2013, study coordinator Busi Tshabalala was shocked to learn a major HIV clinical trial she'd worked on for three years had failed. The reason? Nearly three-quarters of the study's more than 5,000 participants at research sites throughout Africa—including hers in Johannesburg, South Africa—had not consistently used the study products.

Tshabalala was in the room when around 60 study participants learned about what had happened. She recalls an overwhelming air of disappointment. Some cried. Some sat stone-faced. Others openly admitted they hadn't stuck with it. They confessed they hadn't been honest during the course of the study. Why? They didn't want to disappoint the site staff.

"As difficult as they were to accept, the VOICE results completely changed our approach," says Sharon Hillier.



VOICE had a noble goal: Offer women a method for HIV prevention—a daily pill or gel-that they could control, unlike, say, a condom.

The trial's failure meant such a product would not be realized for another eight years at least.

Yet the study led to a reckoning.

The way the trial organizers had set up the study and the assumptions they'd made had not gotten them where they wanted to be. They needed to engage deeply with these women-not just once or twice, but continuously.

"As difficult as they were to accept, the VOICE results completely changed our approach," says Sharon Hillier, a PhD, MTN principal investigator and professor and vice chair of obstetrics, gynecology and reproductive sciences at the University of Pittsburgh. "They compelled us to do things differently and understand the communities we were working with much better."

After VOICE, the data that came from MTN about acceptability, usability, attitudes and behaviors related to products for HIV prevention made a huge difference in the field, says Diane Rausch, a PhD, director of the Office of AIDS Research at the National Institutes of Health, a primary funder of the MTN. The National Institute of Allergy and Infectious Diseases and Eunice Kennedy Shriver National Institute of Child Health

and Human Development also support MTN.

VOICE organizers went back to the drawing board. They had interviewed participants during the study, but realized they needed to probe more to figure out what was going on. So they had research staff who hadn't worked on VOICE ask the questions—away from the clinic. They pulled together focus groups. They conducted in-depth interviews. They also provided VOICE participants with blood tests that showed their actual patterns of product use during the trial, and asked why they thought their self-reports differed.

What did they learn? Some women didn't trust the products being tested. Some had heard rumors that the drugs were harmful or would make you infertile. Some believed that the products could actually give you HIV. Some didn't like the way the pill tasted or the gel felt. Others just couldn't remember to use the product every day.

These lessons learned were applied to MTN's subsequent trials—like REACH, which evaluated a vaginal ring and oral pill for HIV prevention among young women and adolescent girls ages 16 to 21. Giving participants a say not only before, but also during, the study helped encourage mutual respect among REACH site staff and study volunteers, says Kenneth Ngure, a PhD, MPH, cochair of the study and associate professor at the Jomo Kenyatta University of Agriculture and Technology near Nairobi, Kenya.

REACH participants were clear about how they could be accommodated better: Youthfriendly clinic spaces. Shorter visits. Those specula used for pelvic exams? Too cold! Also, they wanted more privacy around their sexual health. (Surprise!)

So, to preserve privacy, REACH limited the number of staff members present during clinic visits. To make pelvic exams more comfortable, clinicians started prewarming speculums. To make the clinics more welcoming, they hung posters and put out materials young people might enjoy reading.

We went back to look at our data collection instruments and cut some of the guestions to make sure they were very focused, so we could reduce their time in the clinic," says Ngure.

"It was important that the participants knew they were partners in the process."

Clinical psychologist Iván Balán, a PhD professor at Florida State University College of Medicine who has worked with the MTN since 2012, says: "There is a tendency to think that we can convince people to do something we want them to do, because we think, 'If you just had all the information I have, you would feel just like me.'

"Our inclination is to give people more and more information, but it doesn't work like that. It's about making sure the information we are giving is linked to their goals."

As MTN moved forward after VOICE, network researchers acknowledged that their products and approaches had to be much more user-centric.

They realized that the people they are trying to serve are experts about themselves. They know what they want and don't want.

Remember how women didn't want to apply a product every day?

Pitt's Lisa Rohan is developing and testing a long-acting vaginal film—that looks a bit like a Listerine breath strip. Rohan, a PhD, is principal investigator of MTN's Laboratory Center and professor of pharmaceutical sciences in the School of Pharmacy. She also holds appointments with the Department of Obstetrics, Gynecology and Reproductive Sciences, the Clinical and Translational Science Institute and Magee-Womens Research Institute.

Women may have a means to protect themselves very soon.

The MTN has contributed to the first biomedical HIV prevention method developed specifically for women that's under regulatory review—it's a vaginal ring that the user inserts monthly. The ring, which cuts the likelihood of acquiring HIV in half, was recommended by the World Health Organization in 2021 and has been approved in several African

Adapted from "A look back, MTN Network." Used with permission.



CLASS NOTES

Aaron C. Mason (MD

'94, Res '98, Res '05) was recently recruited by the University of Arizona as clinical associate professor and chief of the plastic surgery section in the division of surgical oncology. Previously, he had served as chief of pediatric plastic surgery at the Children's Hospital

Mason

Colorado, the top-ranked, largest tertiary pediatric hospital for the eight states Mountain Region. He was honored as a 2020 inductee into the American Association of Plastic Surgeons. Prior to moving to Colorado, he established the first plastic surgery residency program in the state of West Virginia, which, at the time, had only around 20 operating plastic surgeons. "About 30% of residents will stay in the

state where they trained," Mason explains. "So the best way to build a group of physician providers that will stay is to train them locally."

Gregory Bump (MD '00) was recently promoted to professor of medicine at Pitt Med's Division of General Internal Medicine. In 2019, he became associate dean for Graduate Medical Education as well as the designated institutional official for all of UPMC's residency and fellowship training programs—overseeing more than

150 programs educating roughly 2,000 residents and fellows. "We have a lot to be proud of," Bump says. "Every year we graduate several hundred well rounded, outstanding doctors who provide great care to our patients." Bump has many fond memories of med school at Pitt, where he met his wife, Marion

Hughes (MD '00), during a problem-based learning session early in their first year. Hughes is Pitt Med associate professor of radiology and otolaryngology as well as program director for the diagnostic radiology residency program.

Bump

Frederick Anderson (MD '01) took an interest in human rights advocacy early on in his medical career. He pursued this passion at Pitt Med, where he completed the Global Health and Underserved Populations area of concentration. He now serves as associate professor and medical director for the Department of Humanities, Health and Society at Florida International University's Herbert Wertheim College of Medicine. There, he oversees the clinical services of both his department and the

NeighborhoodHELP program, which "focuses as a service learning program for interprofessional students," he says. Students from various disciplines come together to research and discuss social determinants of health while also providing medical care to underserved communities in the Miami area.



Anderson

Joshua Snyder (PhD '09) is associate professor of surgery and of cell biology at Duke University. As a grad student at Pitt, he was drawn to understand "how cells communicate to the outside world." Today, Snyder's lab works with his cancer rainbow mice, or

"crainbow mice," to understand the cellular behaviors of malignant tumors. The "rainbow" comes from fluorescent proteins found in ocean-floor-dwelling creatures engineered to light up mutations in mice; Snyder and his team retrieve the colors to trace "how mutations cause cells to mis-

behave," he says. Findings from this research, Snyder hopes, will illuminate "which tumors are going to cause trouble" in patients; the approach could help cancer screening and treatments.



Snyder

Rebecca Leeman-Neill (MD '10, PhD '10) is assistant professor of pathology and cell biology at Columbia University,

where she researches molecular mechanisms of lymphomagenesis. Recently, she published on post-transplant plasmablastic lymphomas, rare tumors that can appear in patients who've recently received a donor organ. She has also been investigating how the B-cell genome changes throughout lymphomagenesis. "My

hope," she says, "is that we will be able to prevent the transformation of low-grade lymphomas by understanding the changes that occur that allow them to transform into

something more aggressive." As a Black woman and pediatric surgeon who is both an MD and PhD, Natasha Corbitt (PhD '11, MD '13),

assistant professor of surgery at UT Southwestern Medical Center, is considered a pioneer. "When I learned that I

was the first one, I really felt like it's important for young girls to know that, so then they can feel like they can do it too," Corbitt says. When she's not teaching, she splits her time between operations at Children's Medical Center Dallas and research on the causes of biliary atresia, a condition that is the number one reason that children require liver transplantations.



Leeman-Neill



Primack

Njoku

Brian Primack (PhD '11) founded Pitt's Center for Research on Media, Technology and Health in 2014. Last summer, Primack released "You Are What You Click: How Being Selective, Positive, and Creative Can Transform Your Social Media Experience" (Chronicle Prism 2021), a book largely based on work he conducted at Pitt

with Kar-Hai Chu (MS '19), Jason Colditz, César Escobar-Viera, Beth Hoffman, Ariel Shensa, Jaime Sidani and Michelle Woods. In 2019, he made a move to the University of Arkansas, where he is now dean of the College of Education and Health Professions. He was recently named dean of Oregon State

> University's College of Public Health and Human Sciences. He will start June 30, 2022.

Ihuoma Njoku (MD

'19), a third-year psychiatry resident at the University of Virginia's psychiatry and neurobehavioral sciences department, received the Leonard Tow

Teaching Award from the Gold Foundation. She is serving as a Leadership Fellow for the American Psychiatric Association and a member of the AAMC's Organization of Resident Representatives. Njoku volunteers for the Charlottesville Free Clinic. "I like [having] the ability to give people the space to tell their stories," she says, "and I appreciate the ability to help them get closer to living their fullest life." Looking back on her fond Pitt memories, she's especially grateful to Chenits Pettigrew and Laura Jeannerette for their lessons in "resilience and self-compassion"; Allison Dekosky, Maria Guyette and Diego Gnecco-Chaves for "using the physician's voice for advocacy"; and Hader Mansour for "rolling with resistance when caring for patients."

> —Rachel Mennies, Hope Reveche, Kari Villanueva and Elaine Vitone

HISTORY MAKERS, GAME CHANGERS

Black Surgeon Leaders

obert S.D. Higgins (Res '90) blazed a trail at Johns Hopkins in 2017 when he was appointed the institution's first African American director of the Department of Surgery. He says achieving that success only made him work harder: "It challenged me to elevate my game and prove I belonged in an environment like this."

Higgins calls Pitt foundational for his success as a transplant surgeon.

Recently, he made a move to Boston. Higgins is the new president of Brigham and Women's Hospital and executive vice president of Mass General Brigham.

In September, **KMarie King**, (Res '05) became the first Black woman to chair a department of surgery at an academic U.S. health sciences center; she's at Albany Medical Center.

King, who was born in Jamaica and grew up in Brooklyn, says she knew at age 8 the career path she would follow. "I looked up at the sky and imagined myself as an astronomer." But the universe, she says, told her otherwise—that she would become a doctor.

At Pitt Med, says King, "What I really learned was what teamwork really looked like in medicine. That became a key to my success."

Henri Ford (Fel '89, '93), dean of the University of Miami Leonard M. Miller School of Medicine, says the most significant moment in his career came in 2015, when he led

a team that successfully separated conjoined twin girls in Ford's native Haiti. He still keeps in touch with the family. The girls "are doing dance, ballet and they sing," Ford says. "They are just a delight."

Ford calls his Pitt training with Richard Simmons "nothing short of phenomenal," adding, "Not only was he a role model, mentor and sponsor, he taught me how to think critically. The training I had in pediatric surgery was second to none."

Barbadian-born **Velma Scantlebury** (Fel '88), former associate director of Pitt's kidney transplant program, became the nation's first Black female transplant surgeon in 1989. After more than 2,000 transplant operations, she hung up her scrubs this year, retiring as director of the kidney transplant program at Christiana Care Transplant Program in Newark, Delaware.

Ala Stanford (Res '04), who trained in UPMC's general surgery residency, made a splash in June as a CNN Hero for founding the Black Doctors COVID-19 Consortium, a mobile COVID-19 testing and vaccination service committed to combatting the pandemic in the hardest-hit areas of Southeastern Pennsylvania. —*Michael Aubele*







It was an exciting year for surgeons who got their start at Pitt. Shown here—Higgins (top), King and Ford.

AKE GRENVIK

JULY 10, 1929—SEPT. 5, 2021



now Distinguished Professor and Mitchell P. Fink Professor of Critical Care Medicine at Pitt and executive vice president and chief innovation officer at UPMC.

Angus recalls Grenvik's kindness and generosity. In the summer, Grenvik welcomed his fellows into his home, threw pool parties and made Swedish meatballs. "Ake was a tireless supporter," Angus says. "We were all his family. He was a second father to us."

Born in Sweden, Grenvik graduated from the Karolinska Institute in Stockholm and, after studying mechanical ventilation, received his PhD from Uppsala University in 1966. He then moved to the United States and

became a professor of anesthesiology at Pitt in 1968. Grenvik's tenure as critical care chief lasted 30 years; he remained a leading faculty member and mentor until he retired as Distinguished Service Professor of Critical Care Medicine.

Throughout his career, Grenvik trained generations of critical care physicians, established standards of ethical and humanitarian care in medicine and produced an influential body of work on defining such terms as "brain dead" and "critical care triage." He was a driving force behind the development of Pitt's Winter Institute for Simulation, Education and Research (WISER).

Angus says, "There is a sense that we don't make people like Ake anymore. I hope that's not true. His was a life lived. Oh, that the rest of us could be so lucky." —Kari Villanueva

LEON L. HALEY JR.

NOV. 6, 1964—JULY 24, 2021

n December 2020, Leon Haley Jr. (MD '90) rolled up his sleeve and received the first COVID-19 vaccine administered in the state of Florida. This was typical Haley, his friends and colleagues say. He believed it's not enough to simply treat patients; a physician must truly empathize and understand them.

Haley, dean of the University of Florida College of Medicine and CEO of UF Health, Jacksonville, was a prominent figure in the vaccine rollout in his local area. He administered 15 vaccines to colleagues at UF Health before leaving work on July 23, 2021.

The following day, he died in a jet ski malfunction in West Palm Beach. He was 56.

Haley offered mentoring and guidance locally for students at Edward Waters University, a historically Black institution. He had been a champion of diversity, equity and inclusion efforts dating back to his med school days. Chenits Pettigrew, director of the Office of Diversity, Equity and Inclusion at Pitt Med, recalls, "No matter how busy his schedule was, he always found 30 minutes of his time to give to you, even if it was just a 'How are you!'"



Haley Jr.

Haley is remembered by friends and family not only as a talented physician, but also as a dedicated father to his three children, Nichelle, Wesley and Grant. All three played sports, and Haley made a point to never miss a game. (Grant Haley now plays for the Los Angeles Rams. See inside front cover.) "That can't have been easy with his schedule," says Pettigrew. "It was important to him."

At Leon Haley's funeral, which was livestreamed from Pittsburgh's Wesley Center A.M.E. Zion Church, where he was baptized in 1965, Grant Haley said his father was "the greatest man I'll ever know."

Six days after Haley's death, 152 UF Health Jacksonville staff were vaccinated in Haley's honor. —*KV*

IN MEMORIAM

'40s

RICHARD V. SKIBBENS MD '49 OCT. 17, 2021

'50s

HENRY C. LEWIS MD '53 SEPT. 29, 2021

MAURICE E. ROUGRAFF MD '54

AUG. 12, 2021

GENE R. BOUCH MD '55JULY 30, 2021

EDWIN S. KREMER JR. MD '55JULY 18, 2021

KENNETH I. RANNEY MD '55NOV. 17, 2021

DAVID E. BROUGHER MD '56 SEPT. 23, 2021 **HENRY E. SIMMONS MD '57**JULY 16, 2021

ALVIN MARKOVITZ MD '58 AUG. 30, 2021

LAWRENCE M. GILFORD MD '59
AUG. 25, 2021

'60S BERNARD B. DAVIS JR. MD '61SEPT. 4, 2021

JOEL SAFIER MD '64, RES '66 OCT. 28, 2021

'70s BERNARD L. ROTTSCHAEFER MD '71 AUG. 25, 2021

RICHARD G. CASSOFF MD '73 NOV. 14, 2021 MARVIN A. RACHELEFSKY MD '74 JULY 24, 2021

REBECCA J. CASERIO MD '75, RES '83JULY 12, 2021

HUGH JAMES FRANCIS ROBERTSON FEL '75 JUNE 1, 2021

'80S BETTY B. CHIDESTER MD '80SEPT. 1, 2021

RICHARD A. SHUBIN MD '82
JULY 1, 2021

FACULTY RUSSELL RULE RYCHECK MD '57, RES '61, FEL '62 DEC. 17, 2021

BEAMED UP

On Aug. 26, a ceremonial beam was raised for the West Wing addition to Alan Magee Scaife Hall.

The need for the expansion has been clear, said Chancellor Patrick Gallagher, who spoke at a beam-raising ceremony. "We're building a world-class facility to match our world-class medical school. It's something we owed the medical students."

The addition is expected to open in 2022. In the fall of 2023, a new curriculum will launch, and the building will serve as a platform for educational approaches that include more active learning and frequent assessment, novel use of technology to improve retention, better integration and room for team-building and collaboration. Teaching, relaxation and study spaces in the West Wing will incorporate lots of natural light. See a list of features below.

"This is really about the future of Pitt Health Sciences," said Anantha Shekhar, senior vice chancellor for the health sciences and John and Gertrude Petersen Dean, School of Medicine. "It is a beacon of our commitment to the health sciences."

As part of the August ceremony, students presented items that speak to their experiences at Pitt for a time capsule. Among those: a white coat signed by students in their first year, a photo of second-year students in a Zoom call, a bottle of Purell hand sanitizer from third-years, a poem by a fourth-year med student (see "Encapsulated") and a stuffed-pet-style microbe antibody from graduate students. —*Michael Aubele*

—Photograph courtesy Jennifer Haberman

WEST WING FEATURES

- a 600-person capacity auditorium, the lower half of which has moveable seating for multipurpose use
- small group spaces that can shift to support more casebased and team-based educational approaches
- a gross anatomy lab that combines the benefits of traditional cadaveric dissection with a facility for augmented/virtual reality
- a testing room for written and computer-based assessments, allowing everyone to test concurrently, reducing proctoring needs and adding convenience for learners, staff and faculty
- multipurpose spaces on every floor
- open areas for study, group work or small conversations
- fireplace
- café offering indoor and outdoor seating
- an increased number of larger lockers and changing rooms for students
- student lounges
- private study spaces
- library classrooms
- a designated printer/copier area allowing 24-hour student access
- windows!

ENCAPSULATED

ncluded in the time capsule for the West Wing (see previous page) was this poem, by Kevin Oommen Class of 2022), which he performed originally for the calent section of the 2019 Mr. Pitt Med pageant.

Pitt Med Time Capsule

For choosing the University of Pittsburgh School of Medicine To the future class of 2052, I salute you

know you live in the future with fancy drugs and novel cures But let me tell you a story from the past that's sure to allure n your modern and improved Scaife Hall, you can't relate See we lived in a simpler time, the year was 2-0-1-8

n a threatening email to my inbox saying I didn't belong It wasn't before long, before the birdy sang its song was up on the fifth floor just to study a tad bit n one of the classrooms up there I did dare sit

See we lived in a simple time, where study rooms were divine See the 5th floor was reserved for those of year two Any logical explanation I could simply not construe And with this revelation I eventually did resign

The walk of shame down the stairs made my poor heart sore But just as I thought I was about to get settled At least I had a home on this lower level Alas, onward down to the fourth floor

t was none other than the Tsinghua Scholars, further knocking my pride peeked through the window to see who could be inside When would I get to study? When I was an MS3? went from door to door, but no room was free

There was one given by the Dean, so it was sure to rock might as well take a break and go to a lunch talk But all this walking around had made me hungry t appeared today I would not be able to study

He was giving a presentation about his new zebrafish lab f there was one thing for certain, this would not be drab We will need to stop so I can tell you something But before I tell you all about the NIH funding

See the real reason I was there was because the dean had a friend Who would cook us delicious pizzas with no end His last name was John, His first name was Papa

Every time I took a bite it felt like an Italian opera



So while you sit in your fancy building with all of your windows To tell the tales of yonder, of what we had to pull through Take a minute to think about the ones who came before So to the Class of 2052, why do I share this with you? -Kevin Oommen



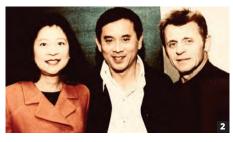
Student poet Kevin Oommen explains the insider content:

- In the 2018-2019 academic year, there was contention between the first- and second- year tudents, leading to some friendly animosity between our classes. (All in g
- Oftentimes the fourth-floor rooms were booked with other groups in the school, such as the wo-year biomedical research training program). That left medical students looking for study Tsinghua Scholars (medical students from China who would come to Pitt Med for a mentored spaces elsewhere in Scaife.

The then-dean of the medical school was Arthur Levine, a prolific researcher enthusiastic about ze-

- orafish research; he gave long presentations to the medical students. He was proud of the impressive evel of National Institutes of Health funding at Pitt and would bring it up often during his talks with
 - Whenever there was a school-sponsored lunch talk, it was always accompanied by one food and one food only: pizza from Papa John's. People got so sick of eating the stuff that student groups would host their lunch talks by advertising their food as NOT PIZZA.
- The old Scaife Hall did not have many windows. Hopefully, the Scaife Hall of the future will have





Freddie Fu once said, "I practice medicine with unconditional love." His love has been felt far and wide: (1) With the Freddie Fu Cycling Team at the start of the Pittsburgh Marathon (for which he was also a catalyst) in 2018. (2) Hilda and Freddie Fu with patient Mikhail Baryshnikov. (3) Fu and physical therapist Erica Coffey examine the ankle of Pittsburgh Ballet Theatre's Christine Schwaner. (4) The Fus reimagined the School of Medicine's White Coat Ceremony to show off cultural Pittsburgh. Fu is shown with grandkids Ludivine and Lex at the Pitt Med photobooth at the 2018 ceremony.













Ibrahimović (with Pitt's Volker Musahl, Res '08). (6) A mandrill. (7) Olympian Suzie McConnell. (8) Pitt Panther Larry Fitzgerald. Also: (9) Kent State anthropologist C. Owen Lovejoy and 3 million-year-old hominid Lucy helped Fu understand modern human knees. (10) Players for all of Pitt's teams wore patches with "FF" on them in the week following his death.

A few of his patients: (5) Zlatan

HEALER AND FRIEND TO ALL

Thousands of paper citations, thousands of mentees, even more thousands of patients. It's hard to quantify the influence of the late Freddie Fu (MD '77, Res '82) but we've tried for years.

Here at Pitt Med magazine, we loved writing about him and could have reported on his latest accomplishments in every issue—but we paced ourselves. The

truth is, we couldn't possibly keep up.

He changed orthopaedic practice, so he was sought out. This renaissance MD repaired the anatomies of ballet star Mikhail Baryshnikov and five-time Tour de France winner Miguel Indurain. (At one point, Fu himself rode about 100 miles a week and sponsored a professional team—the Freddie Fu Cycling Team of the Allegheny Cycling Association.)

He healed plenty of Pittsburghers, too: steel workers, weekend warriors, high school athletes. He was known to do as many as 12 procedures a day and would help clean up in between to save time.

Along the way, Fu and his team examined a

grizzly, a tiger, a mandrill and a lemur. The motivations for the zoo patients were largely scientific, but no one was left out with Freddie. He was a healer and friend to all.



—Pitt Med staff

CALENDAR

FOR ALUMNI & FRIENDS

Unless otherwise noted, for information: Michael Downs at 412-648-9059 or mld139@pitt.edu

PITT HEALTH ACADEMY: **DECODING THE MATRIX**

APRIL 27, 6-8:30 P.M. InterContinental Washington, D.C.— The Wharf

DIPLOMA DAY MAY 23, 11 A.M.

Carnegie Music Hall

PITT HEALTH ACADEMY

MAY 26 San Francisco, Calif.

WHITE COAT CEREMONY AUG 7

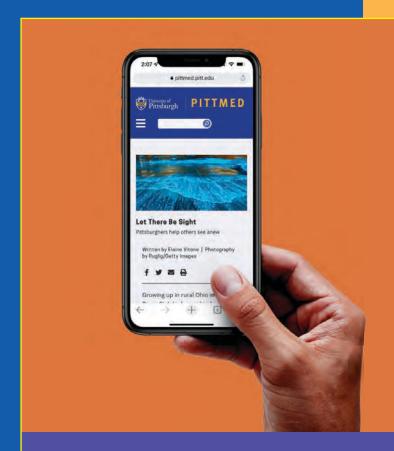
Carnegie Music Hall

HEALTH SCIENCES REUNION WEEKEND SEPT 16-18

PITT HOMECOMING OCT 8

WINTER ACADEMY FEB 17, 2023

Naples, Fla.



TAKE IT TO GO

Not too long ago, QR codes were kinda, well, square. But our takeout lifestyle of late gave them a new lease on life.

Say, have you thumbed through our menu on Pitt Med's new website? (Talk about a cool

Scan the code below. If it pleases your palate, tell your friends! Our fabulous feast of features is more phone friendly.

www.pittmed.pitt.edu



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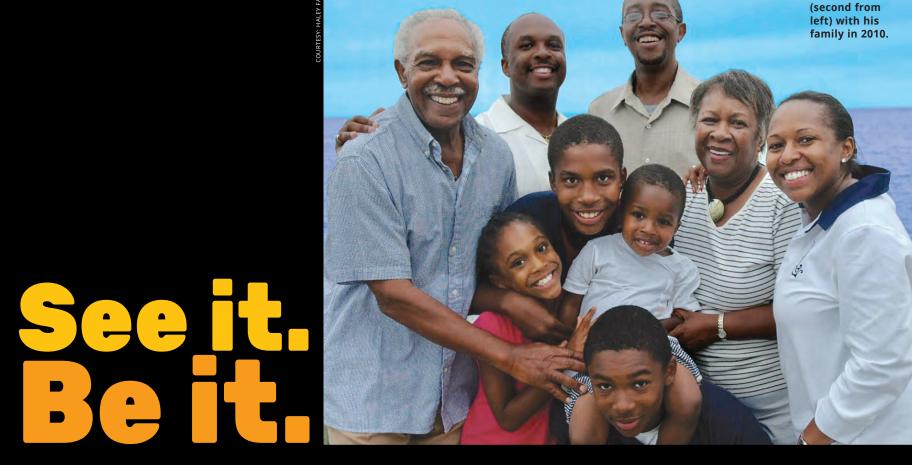


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PITTSBURGH, PA 15261

Leon Haley Jr.



t's often a parent's first-born who takes the lead in caring for them in their golden years. "I always thought he'd be the one," says Leon Haley Sr. (A&S '55) of his namesake, Leon Haley Jr. (MD '90). Sadly, a watercraft accident changed all that this summer (see obit page 36).

On a recent morning, the grieving father recalls what helps make this devastating loss a little easier for him and his wife, Elizabeth Ann Haley (EDUC '75), to bear:

"Leon's goodness, his grace and his service. And the fact that we had him for a time to enjoy as our son." The Haleys, both educators with strong religious and social-justice commitments, raised Haley Jr. and his siblings on a steady diet of "service, service, service" in their dinner table chats. In time, they'd watch their eldest carry these convictions with him throughout his career in emergency medicine and hospital administration.

When Haley Jr. was chief of emergency medicine at Grady Memorial Hospital System in Atlanta, "he never let the position stop him from making his rounds," his father says. This habit of treading the halls continued when he moved to UF Health Jacksonville as CEO. Haley Jr. got to know staffers, took an interest in residents' training and made a point of maintaining connections outside of the C suite, colleagues noted on social media.

One likely reason he did so, says Haley Sr., was because as a Black physician, his son knew what a comfort it was for Black patients to see a face they could identify with, especially in moments of vulnerability. Students and trainees in his orbit, too, found reassurance in his mentorship, support and example.

Soon after his death, the Haley family established the Leon L. Haley Jr. MD Scholarship Fund to support tuition and other education-related expenses for Pitt Med up-and-comers, with preference for African American students.

This is exactly what his son would've wanted, says Haley Sr.

"I believe deep down in his heart, my son always felt himself to be a servant of the people."

To make a gift, contact Ed Nemanic: 412-647-5395, egn4@pitt.edu, Giveto.pitt.edu