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An Overview
of Moffitt's Cancer
Prevention Initiatives

MOFFITT MOMENTUM®

PORTRAITS OF HOPE, INNOVATION AND TRIUMPH

CONTAGIOUS OPTIMISM

Community advocate
shares hope

INNOVATIVE VACCINES

Researcher explores
virus-cancer connection

TRIUMPH AND EXCELLENCE

Nurses earn Magnet designation



Alan F. List, M.D.
President & CEO
Moffitt Cancer Center

MOFFITT MOMENTUM®
VOLUME 2, ISSUE 2

Dear Friends,

We are pleased to share some exciting news in this issue of Moffitt Momentum.

Patient advisor Paul Lombardi discusses how the newly opened Moffitt McKinley Outpatient Center was designed from the patient perspective and with patient well-being in mind.

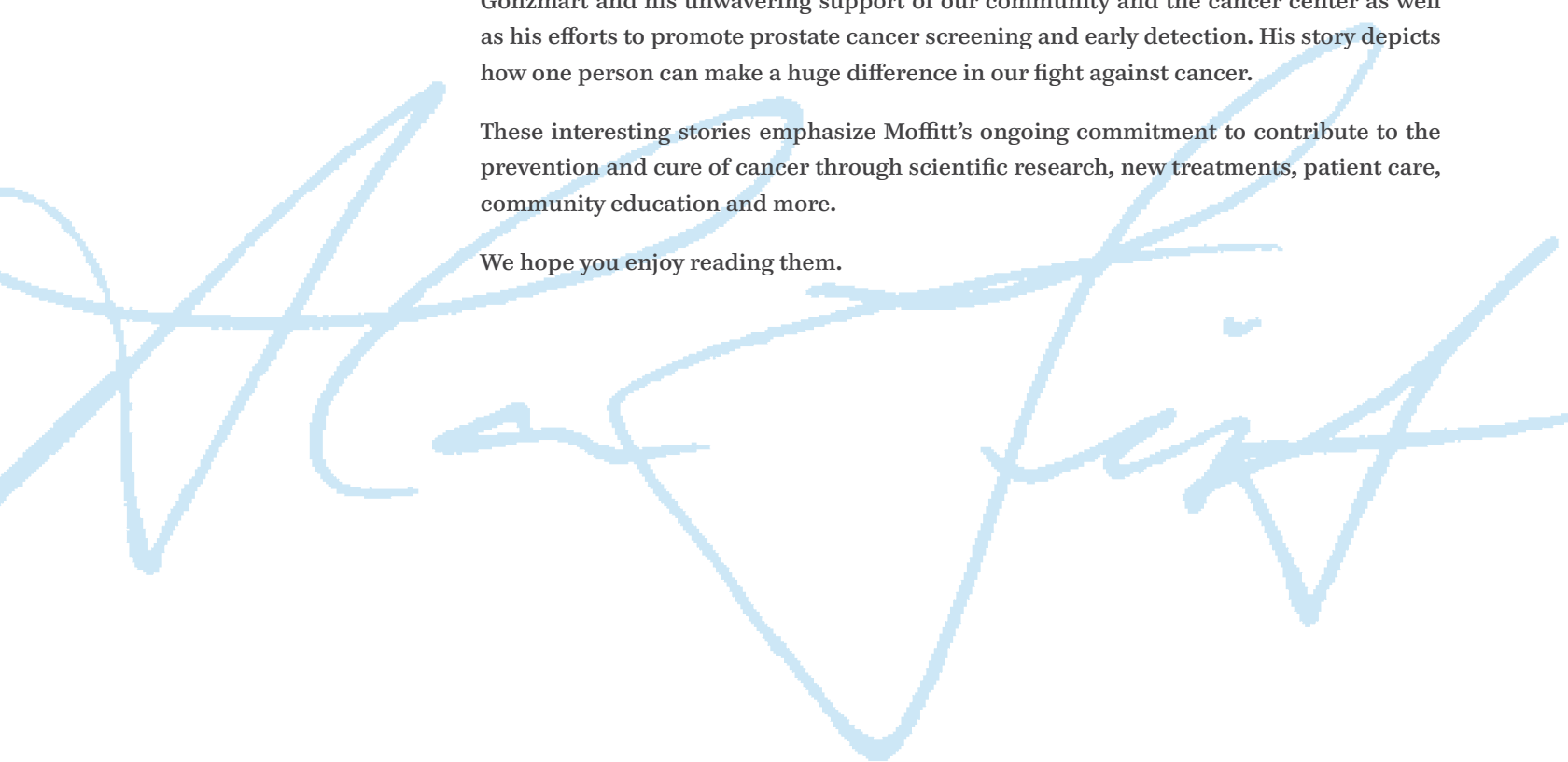
Also in this issue you will meet Joel Stettler, one of our many dedicated nurses who helped the cancer center achieve the prestigious Magnet nursing designation. Patients rely on Magnet designation as the ultimate credential for high-quality nursing.

Here at Moffitt prevention is tied to all we do. The special magazine insert provides an overview of Moffitt's cancer prevention initiatives over our history. Our prevention efforts include discoveries related to various infections and cancer, such as HPV vaccine research, led by Dr. Anna Giuliano, who is featured in this issue.

Also related to cancer prevention, I'd like to express our deep appreciation for Richard Gonzmart and his unwavering support of our community and the cancer center as well as his efforts to promote prostate cancer screening and early detection. His story depicts how one person can make a huge difference in our fight against cancer.

These interesting stories emphasize Moffitt's ongoing commitment to contribute to the prevention and cure of cancer through scientific research, new treatments, patient care, community education and more.

We hope you enjoy reading them.



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“It’s All About The Patient”

New McKinley Center Is Designed With Patients’ Comfort In Mind

By Janan Talafer



BRIAN YARBOROUGH, VICKI CARAWAY, R.N., PAUL LOMBARDI

Photography: Ray Reyes

WHEN PAUL LOMBARDI WAS DIAGNOSED WITH CANCER IN 2004, HE HAD NO IDEA THE TURNS HIS LIFE WOULD TAKE OR HOW YEARS LATER IT WOULD BRING HIM TO MOFFITT WHERE HE NOW PLAYS A KEY ROLE ON THE PATIENT AND FAMILY ADVISORY COUNCIL.

He was a lieutenant colonel and intelligence officer in the U.S. Army when a diagnosis of cancer came. But once his treatment was completed, Lombardi decided it was time to trade a 23-year military career for a sailboat. He sailed to the Florida Keys, the Bahamas, and up and down the East Coast.

Unfortunately, this idyllic routine didn’t last long; the cancer returned. More treatment followed, yet once again the cancer came back. Seven years from his initial diagnosis, he was still fighting the battle. This time though, Lombardi and his wife, Kristen, were referred to Moffitt Cancer Center.

“I knew from the minute I walked in the door that I was in the right place,” Lombardi says. “Everyone was very positive and friendly, but most importantly, I was able to get everything taken care of in one place. I can’t overstate how much of a difference that makes.”

The cancer was much worse this time. Doctors recommended a bone marrow transplant using umbilical cord stem cells, a procedure offered at Moffitt. The transplant was successful, but the risk of infection was too great to return to the boat. His sailing days were ending, setting him on a new course.

NEW ROLE AS A PATIENT ADVISOR

With Lombardi well on the way to recovery, he and Kristen decided it was time to make Tampa their permanent home. It wasn’t long before both began volunteering in the Moffitt Patient and Family Advisory Program.



PAUL LOMBARDI
SURVIVOR

Now in its 10th year, the program creates a platform for patients and family members to share their unique perspective on ways to enhance communication and to improve patient safety and satisfaction. The goal is to create a partnership between patients and staff that will continually improve the delivery of care. Although many hospitals across the country now have similar programs, Moffitt was a pioneer in inviting patients and families to collaborate with staff members. Moffitt was the second NCI



Artist's rendering of the Moffitt McKinley Outpatient Center

comprehensive cancer center to start such a program, and it is modeled after the one at Dana-Farber Cancer Institute in Boston.

In the three years that he's been on the Patient and Family Advisory Council, Lombardi has provided input on a redesign of both the Moffitt cafeteria and website and has been part of a selection team interviewing new hospital executives. Currently, he is on the project team for the new Moffitt McKinley Outpatient Center, a six-story, 207,000-square-foot facility that is scheduled to open in November.

“Just being able to expand Moffitt’s footprint and its ability to serve patients was very rewarding”

“Working with Paul has helped us focus on what is important,” says Vicki Caraway, R.N., administrative director of operations, McKinley campus. “How I think patients want everything to be may not be what they want. I knew from day one that I did not want to move forward on planning for a new facility without having a patient partner on our team.”

For Lombardi, being asked to participate in a project of this magnitude was equally rewarding.

“I hope I have contributed half as much as I get in return,” Lombardi says. “It’s very satisfying to have the group ask what I think and then have my suggestions taken to heart and put into action. Moffitt has a culture that truly cares about what patients and family members think.”

Lombardi’s feedback was particularly valuable when the committee’s conversation turned to where to place the new Morsani Patient and Family Center, a hub for information, hospitality, support and expressive arts. The committee had considered placing the program near a clinical area on the second floor of the McKinley center, but Lombardi was adamant. “I said, ‘It’s unacceptable. It needs to be more visible so patients and family members can have easy access to it.’ I’m a strong advocate for the program, and I know how meaningful it is to patients. I did not want it to be hidden.”

The committee agreed, and the program was moved to the first floor just off the main lobby.

Lombardi was able to help everyone see that from the time the patient walks in the front door, the message they receive should be: “We care about you and respect you as a whole person.” That type of commitment is part of the culture at Moffitt.

MEETING THE DEMAND

Building the new McKinley Center fulfills a critical need to meet the demand for expanded outpatient services, including ambulatory surgery, something Moffitt was unable to do at its main campus, which is at full capacity, Caraway says.

The new center will be on North McKinley Drive on the same site as M2Gen®, Moffitt’s subsidiary company focused on biotechnology. It is about a mile from the main Moffitt campus at the University of South Florida.

Patients and families can expect to find central registration, a café, blood draw lab, imaging services, a Publix pharmacy, and the Morsani Patient and Family Center on the first floor. An outdoor healing garden provides a meditative place to go between appointments.

The second floor will house the outpatient surgery center and additional services, including a quiet room. The Moffitt breast clinic, breast imaging services, genetic counseling, and Moffitt Cancer Center Screening and Prevention will be on the third floor, and a cutaneous clinic will be on the fourth floor. A clinical research unit, infusion rooms and infusion pharmacy will be on the fifth. The sixth floor will remain empty for future expansion.

Brian Yarborough has specialized in health care construction for more than a decade, but this was his first project for Moffitt. As the senior project manager for Skanska—the firm managing the design and construction of the project—Yarborough says it was inspiring to see the level of energy and excitement that the Moffitt team brought to the planning sessions.

“It’s very satisfying to have the group ask what I think and then have my suggestions taken to heart and put into action ...”

“Just being able to expand Moffitt’s footprint and its ability to serve patients was very rewarding,” Yarborough says. “But we also saw firsthand the passion everyone at Moffitt has for their patients. That enthusiasm was definitely transferred to the building design.”

Unlike planning for an office tower or a commercial building, designing a medical facility such as Moffitt is a very different process, Yarborough says. For example, life safety issues require mechanical and electric systems to be much more complex. “There was a significant behind-the-scenes effort to manage the ductwork, electrical and pipes—the systems that no one sees when the building is open,” Yarborough says.

The design of the second-floor outpatient surgery center also required extra effort.

“With an organization like Moffitt that is on the leading edge of technology, you want to make sure that when you open the building that you have the latest, most up-to-date equipment,” Yarborough says.

PATIENT-FRIENDLY DESIGN

As the Moffitt administrator overseeing the McKinley project’s success, Caraway wanted to make sure every decision was made with patient and family comfort and convenience in mind. This was especially important for way-finding signage.

“We believe in keeping everything as simple as we can, and that includes helping patients navigate their way through the building with ease,” Caraway says. “We also wanted patients to have a calm feeling, so we chose soft colors and nature scenes for the décor.”

Each of the center’s six floors is branded with a different color and an image from nature, from a tree to a fern leaf.

Parking was also given considerable attention.

“Our goal with parking was to make sure it was easy,” Caraway says. “Getting from the car to the wheelchair can be difficult, and we wanted to eliminate any stress or risk for falls.”



Patients now have several parking options. A seven-story parking garage with 1,300 parking spaces will connect directly to the McKinley Center via a covered walkway, helping patients avoid any inclement weather. Valet service will be available under a large canopy that overhangs the entrance of the building. Drivers will also be able to pull into a parking space near the valet service, and a valet will bring a wheelchair to the car, allowing those who would like to take their time to not feel rushed, Caraway says.

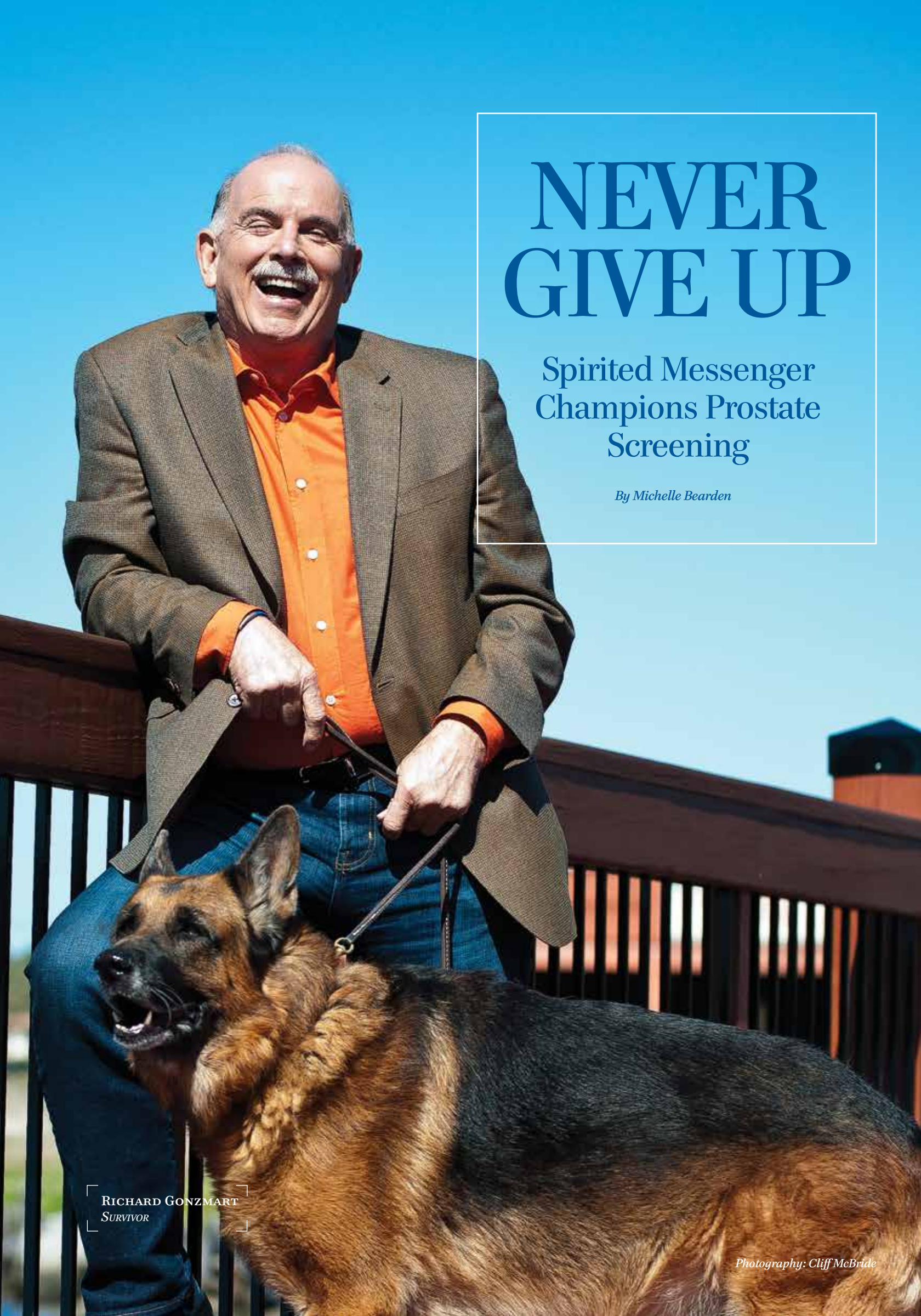
Inside the building, every effort was made to enhance patient dignity and privacy, including designing a separate surgical discharge elevator to eliminate the need for patients to take the main public elevator after undergoing outpatient surgery.

“The Moffitt leadership has been very invested in making sure the McKinley facility is the best it can be,” says Karenne Levy, director of the newly created Department of Patient Experience. “It is a testament to really understanding the patient voice. Any time you get input, create a partnership and build consensus it is the right thing to do. If we can alleviate any of the anxiety that patients feel and enhance their quality of life while they are here for treatment, then we have been successful.”

NEVER GIVE UP

Spirited Messenger Champions Prostate Screening

By Michelle Bearden



RICHARD GONZMART
SURVIVOR

Photography: Cliff McBride

Richard Gonzmart, a man of deep faith, prayed about finding a well-known face and name for help with his efforts to raise funds for prostate cancer research and to help raise awareness of the disease.

“It’s a topic most men don’t want to talk about,” Gonzmart says. “It makes them squeamish and uncomfortable. I wanted a messenger who had the courage to stand up and speak out.”

Not that the Gonzmart name doesn’t hold clout in the Tampa Bay area.

He’s the fourth-generation president of the Columbia Restaurant Group, a legendary chain that includes Florida’s oldest dining establishment in Ybor City, the much-lauded Ulele in the former Tampa Water Works building and the soon-to-be resurrected Goody Goody diner in Hyde Park Village.

In the public sphere, he’s a gracious host, a successful businessman and a generous philanthropist who puts a high priority on giving back to his native city. On the home front, he’s a devoted husband, father and grandfather.

Still, Gonzmart needed someone who was willing to step forward and share his personal story about prostate cancer. Someone who could help champion the importance of the painless screening to detect the disease. Those who catch it in the early stage have a five-year survival rate of nearly 100 percent; when diagnosed at a late stage, patients suffer more serious consequences.

Other than skin cancer, prostate cancer is the most common cancer in American men. One in seven will get it. The American Cancer Society estimates 27,540 men will die from prostate cancer this year. It is the fifth-leading cause of cancer death in the U.S., and African-American men are disproportionately affected.

Then came the message on his cell phone from his urologist after he went in for a routine checkup.

It was Oct. 31, 2013, the day before his annual Richard’s Run for Life. Every dollar raised by the event is donated to the Advanced Prostate Cancer Collaboration at Moffitt Cancer Center and the Adolescent and Young Adult Program for sarcoma research.



“I’ve got good news, Richard. You got prostate cancer, but it’s the nonaggressive kind. And we caught it early,” said Julio Pow-Sang, M.D., chair of the Genitourinary Oncology Department at Moffitt.

Gonzmart’s reaction?

“My prayers were answered,” he says, smiling. “I found my messenger. God does work in mysterious ways.”

Gonzmart, 62, is a man who counts his blessings every day.

“You start with a positive attitude. And in my case, lean on God.”

He met the love of his life, Melanie, at a school dance. He was a 15-year-old sophomore at Jesuit High School, and she was a 13-year-old freshman at Sacred Heart Academy.

Five years later, tossing aside advice from others who said they were way too young, they exchanged wedding vows. Two grown daughters, five grandkids and 42 years later, they still act like they’re on their honeymoon.

Gonzmart had no intentions of letting the disease win. He had way too much to live for, starting with his beloved family. He was in the final stages of opening Ulele and had started the groundwork to bring the famed Goody Goody back to life. An avid runner, he was in training for several major marathons and half-marathons in Boston; Rochester, N.Y.; Chicago; New York City; and St. Augustine. There were charities to support, causes to champion, and international trips on the horizon in search of new wines and products for his restaurants.

“I wanted them to know, and everyone else, that I was not going to let prostate cancer change the way I live my life...”

As for cancer, it had already hit home, twice. His grandfather died of prostate cancer at age 70, and his father died at 72 of pancreatic cancer. It also took one of his good friends, Tampa football great Freddie Solomon. They are the reason Gonzmart has spent so much time and energy promoting prevention and raising funds for cancer research.

NOW, IT WAS HIS TURN TO FIGHT THE BATTLE.

“You start with a positive attitude. And in my case, lean on God,” he says. “Any obstacle he’s put in my path, he helps lead me through it.”

It has worked with his other health issues. Instead of battling the insomnia that limits his sleep to four to five hours, Gonzmart uses those pre-dawn hours to answer emails, catch up on movies or dig into the multiple projects he’s always juggling. He has learned to work with dyslexia and attention deficit disorder, two lifelong conditions he has dealt with since childhood. It starts by speaking openly about them to shed the stigma.

For his severe anxiety, Gonzmart is always accompanied by his German shepherd service dogs, Rex and Rusty. He loves his canine companions so much that he had a statue erected in their honor at his home.

Two days after he got the news, he left on a two-week cruise to Spain, accompanied by Melanie and 30 company employees. When Gonzmart broke the news to his staff, he quickly reassured them he would beat the cancer and become a vocal proponent of routine screenings. If you keep something like this a secret and people find out, he reasoned, “they will have you dead and buried.”

“I wanted them to know, and everyone else, that I was not going to let prostate cancer change the way I live my life,” he says. “It doesn’t have to be a death sentence.”

Because Gonzmart’s cancer was caught early, he was a candidate for high-dose rate brachytherapy (HDR), which is less invasive than other forms of treatment. Dr. Pow-Sang calls it “highly effective while maximizing the preservation of quality of life.”

While the patient is under general anesthesia, about a dozen needles deliver radioactive implants into the prostate gland.

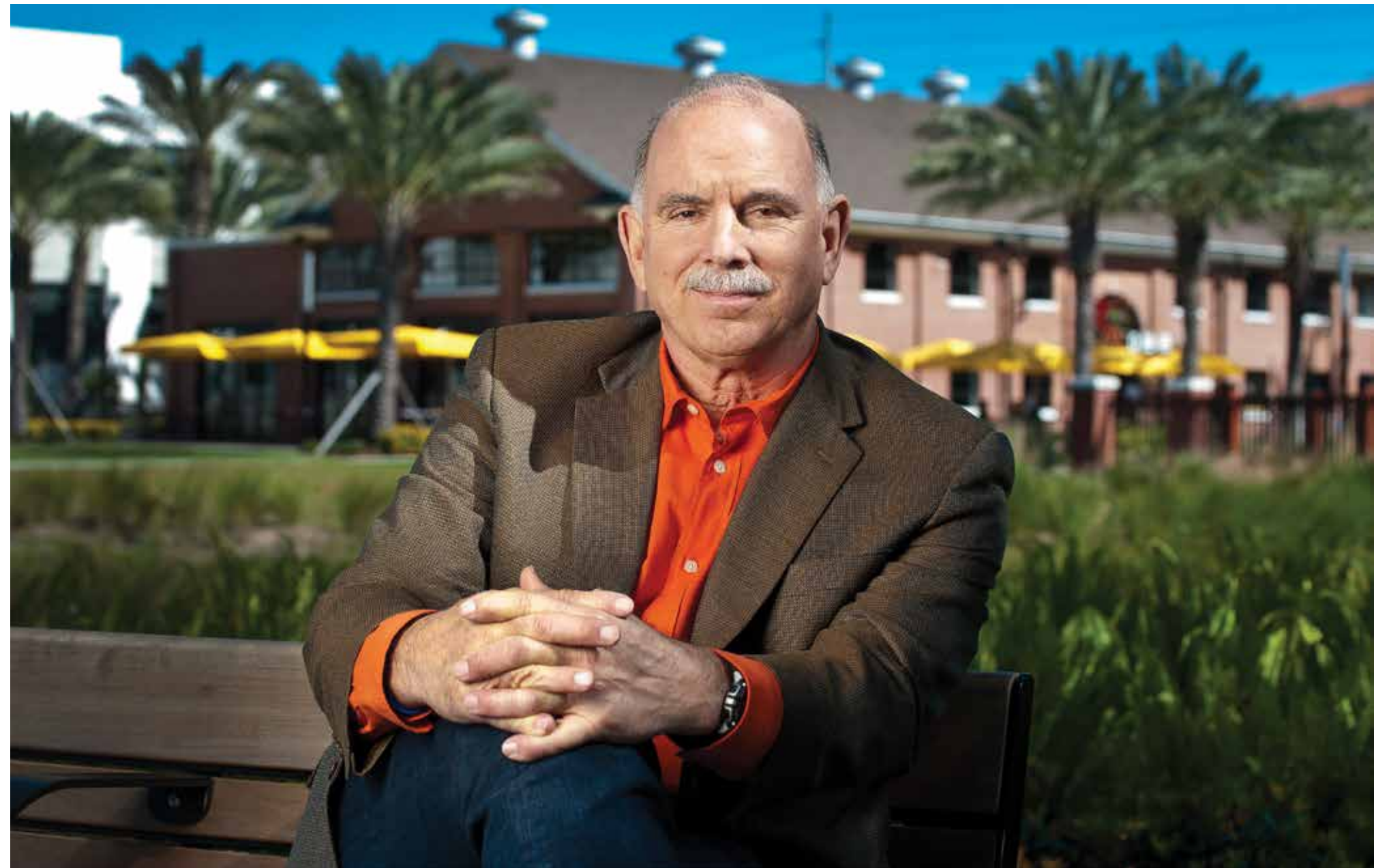
The HDR process included two treatments, two and a half weeks apart. Though it left him quite sore, Gonzmart was able to run four miles a few days after the first treatment. And after the second treatment, he waited four days again and then logged six miles.

He acknowledges that not everyone would attempt such a feat. But this is a man who has survived running with the bulls, twice, in Pamplona. He has completed 150 triathlons and 24 full marathons over the years. So for him, it was important.

“The Lord lets me push the envelope,” he says. “But he’s always watching over me. I really have nothing to fear.” Instinctively, he reaches for the gold St. Jude medal given to him by his father that always hangs on a chain around his neck.

A year later, Gonzmart got the good news that he had promised everyone would come. His prostate specific antigen (PSA) numbers — which can be an early-warning sign of prostate cancer — came in the lowest since he was a young man. And he was declared cancer-free. (PSA is a protein produced by prostate cells, and a PSA blood test is done to help diagnose and follow prostate cancer in men.)

Dr. Pow-Sang says Gonzmart’s experience is not out of the ordinary. “We are learning more about the disease process and developing more effective treatments,” he says. “The best weapon to fight cancer is a very educated patient.”



GONZMART HAS KEPT HIS PROMISE ABOUT BEING A MESSENGER.

In June, for the third year, the Gonzmart Family Foundation sponsored Richard’s Father’s Day Family Walk/Jog, with 100 percent of the proceeds going to Moffitt’s Advanced Prostate Cancer Collaboration. Last year’s event donated more than \$80,000 to the initiative. That’s in addition to the Richard’s Run for Life fundraiser in November, now in its 14th year.

Dr. Pow-Sang says those funds come at a crucial time, as federal grants for research are becoming less available.

Last spring, when he was named a Community Hero in April by the Tampa Bay Lightning, Gonzmart donated part of his \$50,000 award to Moffitt. He has told his story at speaking engagements and community events. He’s a member of the Moffitt Foundation Board of Directors, which oversees fundraising on behalf of and makes contributions to support the cancer center in its mission to contribute to the prevention and cure of cancer.



Melanie and Richard Gonzmart

“I want to keep laughing, keep loving and keep giving, for as long as I can. Every day is a gift.”

And he’s using social media to spread the word to an even bigger audience. Facebook is one of his forums to talk about being a cancer survivor and to encourage men to schedule annual screenings.

A recipient of Gonzmart’s guidance attests to his devotion to this cause.

Steve Cleveland of Indian Rocks Beach went to a routine screening. When his PSA numbers came back “off the charts” and a biopsy was ordered, he reached out to Gonzmart through a personal message on Facebook.

“I had only met him casually in public life a few times. But I had been following his posts about prostate cancer,” says Cleveland, a general contractor who grew up in Tampa. “He answered me up right away. He left his number and asked me to call immediately.”

A former Marine, Cleveland had to rely on insurance provided by the Department of Veterans Affairs. Each of his 14 biopsies came back with a 60 percent or higher rating. He underwent a rigorous robotics surgery that lasted eight hours, followed by 44 radiation treatments over the next six months.

Through it all, Gonzmart was a support system, a prayer partner and an upbeat cheerleader.

“I became part of a fraternity I really didn’t want to join. But once you’re in, there’s a brotherhood there,” Cleveland, 58, says. “Even though he was busy running marathons and a big restaurant company, Richard was there for me. He’s a compassionate guy who made the time to help get me through a difficult period in my life.”

So when Gonzmart asked Cleveland to be one of the speakers at his Father’s Day fundraiser, Cleveland happily complied.

Besides his St. Jude medal, Gonzmart also wears a rubber bracelet around his wrist that proclaims “Never Give Up.” Those three words summarize his robust, adventuresome, accomplished and sometimes complicated life.

A life he will never take for granted.

“The older I get, the more I realize how fast time is flying by,” Gonzmart says. “I want to keep laughing, keep loving and keep giving, for as long as I can. Every day is a gift.” 🍷



Richard Gonzmart with Rex and Rusty

PHYSICIAN-SCIENTIST COMES FULL CIRCLE

From Biomedical Engineering, To Thoracic Medical Oncology,
To Building “Wiring Circuits” For Cancer Cells

By Randolph Fillmore



Eric Haura, M.D.

Photography: Ray Reyes

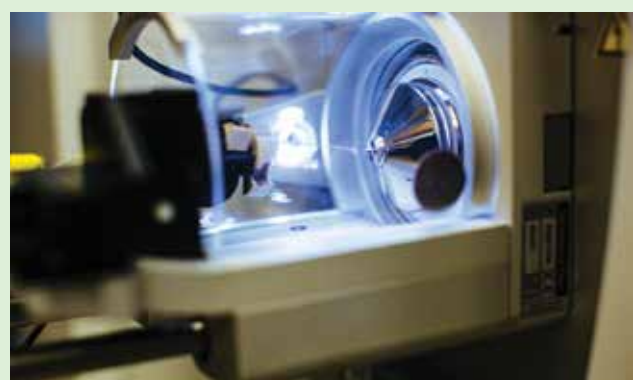
“You could say that proteins ‘talk’ to one another, and unraveling the ‘language’ they speak will help open doors to developing more effective, personalized therapies for patients.”

In every generation, young people are inspired by role models to do important work. After Charles Darwin published the Origin of the Species in 1859, those in the next generation were inspired to find the “missing link.” In the late 19th century, many young people aspired to be first to discover the North Pole. In the early 1960s, becoming an astronaut was a popular dream. And, after the breakthroughs in heart transplantation and other heart-related feats of surgical wizardry, the frontiers of cardiology were an inspiration for many aspiring medical students.

“Yes, I was inspired by the likes of Christiaan Barnard, Denton Cooley or Charles DeBakey to be a great heart surgeon,” says Eric Haura, M.D., who leads the Chemical Biology & Molecular Medicine Program and directs the Lung Cancer Center of Excellence at Moffitt.

The fascination with being a heart surgeon first led Dr. Haura to get a bachelor’s degree in biomedical engineering from Johns Hopkins University in 1990. Because he wanted to understand the circuitry of the heart, his specialty was electrical engineering. The next step was getting the medical degree.

After receiving his M.D. from Duke University in 1994, then serving a residency in internal medicine at Johns Hopkins, followed by subsequent fellowships in genetics, and hematology



WHAT IS MASS SPECTROMETRY?

Mass spectrometry is an analytical technique and accompanying technology that produces a spectrum of the masses of atoms or molecules in a sample. The spectrum is used to determine the “fingerprint,” or signature of the sample, whether in terms of mass or chemistry.

Read more at MOFFIT.org/Momentum

and oncology at Duke in 2000, Dr. Haura suddenly discovered a new research frontier — cancer.

Although suddenly fascinated by looking for ways to unravel the secrets behind cancer and its cure, he did not know then that his interest and training in electrical engineering would come full circle and help him in his quest “to contribute to the prevention and cure of cancer” — Moffitt’s mission.

“Mass spectrometry is one of our most important discovery engines.”

The times caught up with Dr. Haura in recent years when cancer researchers recognized the importance of understanding the internal signaling in cancer cells, the connections that transform healthy cells into cancer cells and the circuitry that helps them proliferate. That advancement rang both true and familiar for Dr. Haura, the electrical engineer at heart.

“You could say that we are building ‘wiring circuits’ for cancer cells,” Dr. Haura says. “Protein interactions in cancer cells are not that different from electrical circuits where the connections are critically important. Genetic research has given us a valuable ‘parts list’ for cancer. Now we have to figure out how those parts are connected and interact as well as the interactive functions of proteins.”

It may seem surprising that Dr. Haura, a physician-scientist who has published hundreds of research papers, can readily convey simple, clear analogies for complicated concepts. Beneath the advanced degrees and scientific awards, however, is a sociable guy who enjoys sports and going bowling with his family.

Dr. Haura’s current research is in “proteomics” — the large-scale study of protein structure and function. Proteomics aims at evaluating how signaling activity in cancer cells is driven by the proteins in tumors.

“Cellular proteins don’t function in isolation,” Dr. Haura explains. “They function as parts of larger complexes of proteins, and identifying and measuring these protein complexes in cancer is important. Genes provide the ‘blueprint’ for cells, while the proteins that are created as the result of genetic ‘engineering’ are the functional components, or the circuitry, that drives both normal cells and disease cells.”

He adds, “Genes can encode proteins, and the proteins are further ‘decorated’ — these ‘decorations’ can change the function

of proteins, thus offering more fine-tuning in cells.”

A few years ago, Dr. Haura went to Austria for several months of training in “mass spectrometry,” a complicated and state-of-the-art technology now used for gaining a better understanding of proteins and how they are modified. During that time, the biomedical electrical engineer in him and the researcher/physician in him shook hands.

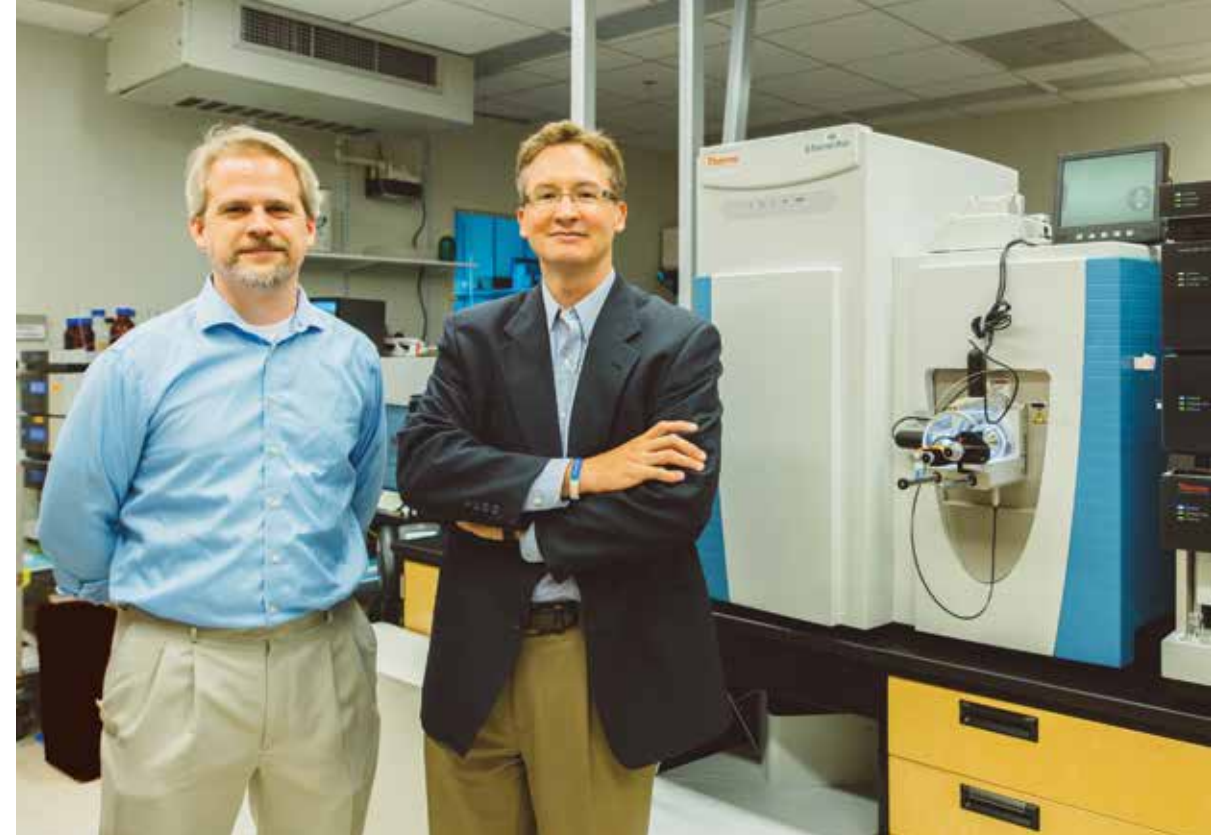
“Mass spectrometry is one of our most important discovery engines,” Dr. Haura says. “We have to figure out ways to purify different parts of cancer cell protein makeup to better understand how proteins function in cancer. Mass spectrometry does this. It breaks down proteins into their component parts so that we can analyze them and better understand their communication activity. You could say that proteins ‘talk’ to one another, and unraveling the ‘language’ they speak will help open doors to developing more effective, personalized therapies for patients.”

He compares identifying the characteristics of proteins by mass spectrometry to “fishing” to see what protein ends up on the “hook.” For Dr. Haura, discovering the proteins in a tumor and knowing how the proteins are signaling one another is the next giant step for cancer research and developing new personalized therapies.

“For analysis in mass spectrometry, we take a protein, chop it into fine pieces so that we have a long molecule, feed it to the mass spectrometry unit, and out comes a report that helps us build a picture of the protein,” Dr. Haura explains. “We can figure out which proteins stick to other proteins, in other words, which proteins are talking to each other.”

Dr. Haura says his work in proteomics relies heavily on Moffitt’s Proteomics Core, a protein investigation shared resource facility headed by John Koomen, Ph.D. In the lab, a gathering of mass spectrometry units hum loudly, and a busy team of laboratory personnel work with purpose.

Work aided by mass spectrometry is paying off by providing answers to important research questions. In a research paper featured on the cover of the Jan. 13, 2015, issue of *Science Signaling*, senior author Dr. Haura and colleagues reported a new approach



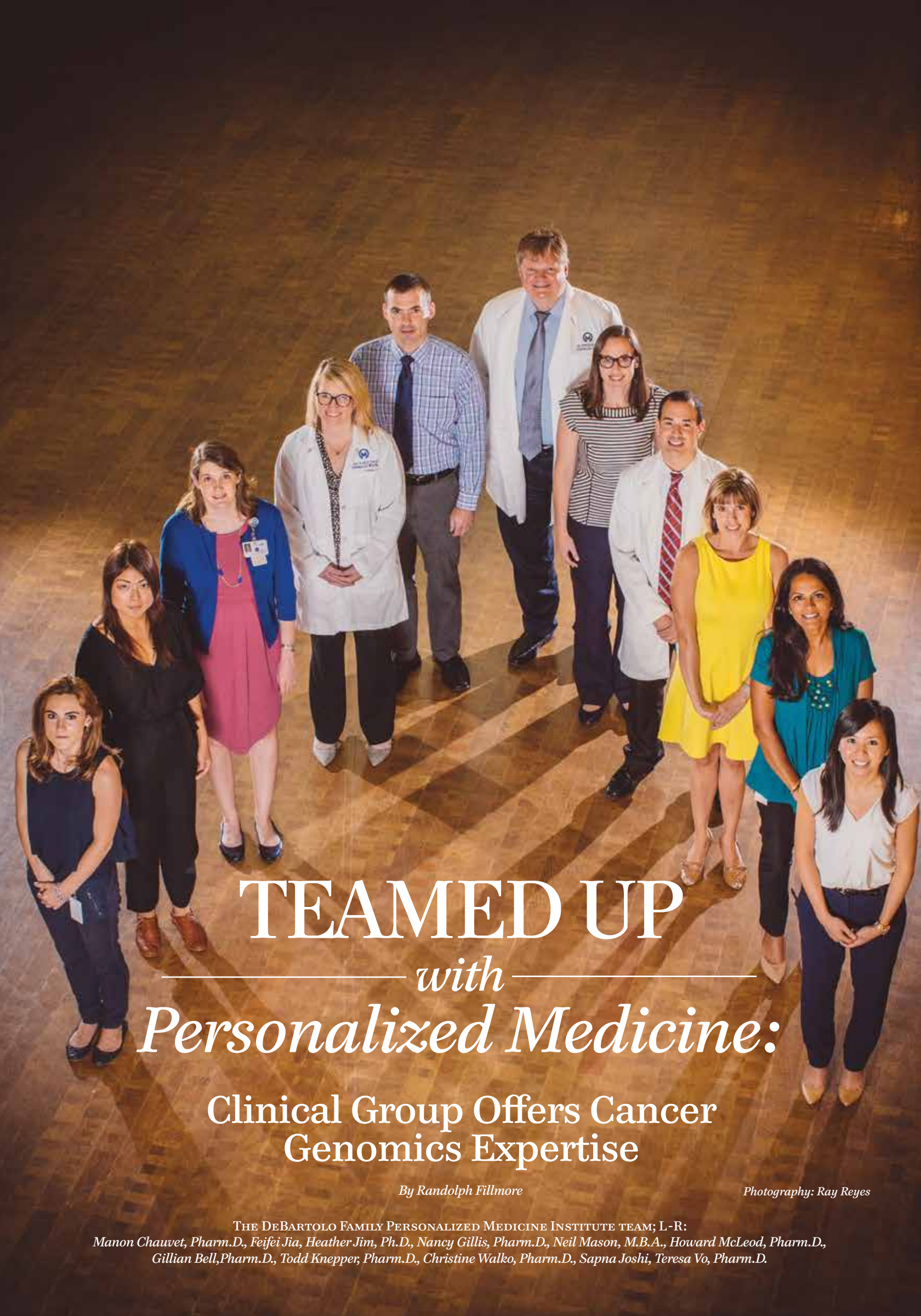
John Koomen, Ph.D. (left) with Dr. Haura

to measure how signaling-associated proteins may have the potential to add to current biomarker tests for drug sensitivity. Prior work with mass spectrometry helped them sort out the characteristics of the proteins involved.

“This opens the door to treatments designed not only for a patient’s genetic individualism but also built on the proteins that are actually at work in their tumors.”

For Dr. Haura, proteomics is the current frontier for cancer research. He is confident that a better understanding of the role of proteins in cancer will empower clinicians to better predict treatment outcomes, overcome drug resistance and identify biomarkers in the proteins that will help personalize treatments. Along with colleagues, he is beginning to think about how proteomics can better decipher the workings of the immune system related to cancer and develop both new diagnostic and therapeutic strategies.

“When I came to Moffitt in 2000, we could only offer patients traditional chemotherapy, in addition to surgery and radiation therapy,” Dr. Haura recalls. “Soon, a patient coming through the doors at Moffitt will have not only their genome sequenced but also have information gathered on their proteome. This opens the door to treatments designed not only for a patient’s genetic individualism but also built on the proteins that are actually at work in their tumors.”



TEAMED UP

with

Personalized Medicine:

Clinical Group Offers Cancer Genomics Expertise

By Randolph Fillmore

Photography: Ray Reyes

THE DEBARTOLO FAMILY PERSONALIZED MEDICINE INSTITUTE TEAM; L-R:

Manon Chauvet, Pharm.D., Feifei Jia, Heather Jim, Ph.D., Nancy Gillis, Pharm.D., Neil Mason, M.B.A., Howard McLeod, Pharm.D., Gillian Bell, Pharm.D., Todd Knepper, Pharm.D., Christine Walko, Pharm.D., Sapna Joshi, Teresa Vo, Pharm.D.

“What I love most about Moffitt is that everyone here knows why they are here — no matter what their job or title, they all know they are here to help cancer patients. That is unique.”

It has been a circuitous and somewhat unusual professional route for a man with a doctorate in pharmacology, but after an educational and professional career bounding from Seattle to Philadelphia to Memphis to Glasgow, Scotland, to St. Louis and to Chapel Hill, Howard McLeod, Pharm.D., finally landed in Tampa at Moffitt in September 2013.

Dr. McLeod’s presence here has been a win-win-win situation. At Moffitt, he serves as medical director of the DeBartolo Family Personalized Medicine Institute, and he is a senior member in Moffitt’s Department of Cancer Epidemiology. Being at Moffitt is a winning situation for him because he has a place to bring his diverse experience and interests to the job. It’s a win for Moffitt because the promises of personalized medicine have taken a great leap forward, and it’s a definite win for patients who will continue to have more and better treatment options.

“What I love most about Moffitt,” says Dr. McLeod, “is that everyone here knows why they are here — no matter what their job or title, they all know they are here to help cancer patients. That is unique.”

An apt perspective. From his office window, he can see most of the Moffitt campus, including a newer research building, the hospital section, an outpatient clinic, and a driveway leading to valet parking with the daily flow of hopeful patients.

Dr. McLeod, and what he is doing, is also unique. Many who have earned a Pharm.D. go on to acquire positions in retail pharmacies, while others work in clinical pharmacology in hospitals. Dr. McLeod, however, is using his pharmacology training in broad, innovative ways. It was the uniqueness, breadth and depth of his experience in research and clinical pharmacology — as well as experience that included both pharmacological knowledge and time spent supervising large clinical trials — that brought him to Tampa to help further Moffitt’s goal to “get the right drug, to the right patient, at the right time.”

To arrive at this point, Dr. McLeod credits Moffitt’s uniqueness in having both clinical expertise and basic science expertise “under one roof” and the success of the Total Cancer Care® protocol that, among its other successes, has established an enormous tissue bank of tumor samples, donated by patients, that can be used to match an individual’s tumor genetics to the newest, most promising genetically targeted treatments.

Another giant step toward personalizing cancer treatment since Dr. McLeod’s arrival at Moffitt has come with the establishment

of Moffitt’s Clinical Genomics Action Committee (CGAC), which Dr. McLeod leads with Dr. Christine Walko and Dr. Jamie Teer. The CGAC members include medical oncologists, surgeons, pathologists, basic scientists, genetic counselors and even financial administrators who participate to further the personalization of cancer care — one patient at a time.

The CGAC is not unlike the traditional tumor board in which a team of surgeons, medical oncologists, radiation oncologists, pathologists and other specialists meet regularly to discuss the comprehensive care of patients with specific types of cancer. But the CGAC takes things a few steps further.



HOWARD MCLEOD, PHARM.D.

“The committee implements cancer genomics and other individualized treatments by providing a multidisciplinary assessment of advanced diagnostic strategies and complex clinical results,” Dr. McLeod explains. “We meet to discuss individualized care for patients diagnosed with all types of cancer, and working together we reach agreement on the best possible treatments for each patient, based on a variety of scientific assessment data.”

He’s passionate about his work. Despite all the hats he wears, when you sit down to talk with Dr. McLeod, he is very much “in the moment,” focused on the conversation at hand.

In addition to offering the patient the best and most advanced personalized treatment available, the CGAC has a new goal: to assess the benefit and risk to that patient for a given treatment. This means hitting what Dr. McLeod calls “the sweet spot.” His team is using genetic and other scientific testing to determine

“Everyone here is on the same page”

how the patient may respond, with an eye toward avoiding toxicities that could cause new and unnecessary illnesses, while simultaneously avoiding the costly management of adverse treatment effects.

The CGAC is set up to review tumor molecular information generated for every case at Moffitt. Also being set up under Dr. McLeod’s leadership is a personalized medicine consulting service that will offer genomic expertise to physicians across the country. Moffitt is expanding its efforts with the aim of becoming one of the first cancer centers in the world to pre-test patients for genomics.

To reach these goals, Dr. McLeod is pulling from his toolbox, put together over many years of diverse experiences. An especially formative experience for Dr. McLeod came during his eight-year stint in the 1990s in Scotland at the University of Glasgow and the University of Aberdeen. There he was able to deploy and employ his training in pharmacology and add a large dose of the clinical and research experience. The total of his talents put him in a unique position in terms of the “hats” he could wear working within the United Kingdom’s National Health Service system. Among other responsibilities, he ran clinical trials with large numbers of patients.

“The UK’s National Health System does not allow all drugs to be prescribed for patients, so about the only way patients with cancer could get new and experimental drugs was to be on a clinical trial,” he explains. “In the U.S., about 10 percent of cancer patients are on clinical trials. That is not the case elsewhere. For example, during my time at the University of Aberdeen, about 80 percent of the cancer patients were on clinical trials.”

“Moffitt’s Precision Molecular Diagnostics Laboratory has been a game changer”

Having large numbers of patients on clinical trials, all in one place and with plenty of data to analyze, was a unique and formative experience, he says. Clinical trials are essential in the search for new and better treatments.

At Moffitt, he is able to merge his vast experience with resources and new technologies that have sped up the analysis of genetic and molecular data on patients, giving clinicians the kind of personalized information on patients not available just a few years ago. This information, both genetic and molecular, helps clinicians decide which patient should be on which clinical trial or treatment, as well as helping patients avoid serious side

effects and the possibility of drug resistance.

“Moffitt’s Precision Molecular Diagnostics Laboratory has been a game changer,” says Dr. McLeod. The laboratory is directed by Anthony Magliocco, M.D., who also chairs Moffitt’s Anatomic Pathology Department. “The lab provides us with fast turnaround when we need genetic and molecular data on a patient’s tumor for procedures such as bone marrow transplants, for which there may be a very limited time window when a patient’s white blood cells are at specific levels. Bone marrow transplants are high-stakes endeavors, and we need data on each candidate very quickly. And we have the advantages of this in-house specialized lab that can quickly carry out molecular analysis, work that is often not performed in a routine clinical laboratory.”

Another technological advantage for Moffitt and for patients, says Dr. McLeod, is the research on patient tumor proteins carried out at Moffitt’s Proteomics Core facility, headed by John Koomen, Ph.D. There, biomedical analysis goes beyond data about a patient’s genetic makeup to information about how specific proteins, the workhorses of the genetic blueprint, function in tumor cells.

The power of Moffitt, says Dr. McLeod, is that basic scientists and clinicians together are using the most modern technology to glean genetic and molecular data on a patient’s tumor and applying those findings to deliver the best possible individualized treatment to each patient.

“Everyone here is on the same page,” he says. 🗨️

THE DEBARTOLO PERSONALIZED MEDICINE INSTITUTE

was established to revolutionize the discovery, delivery and effectiveness of cancer care on an international scale. Providing oversight for Moffitt Cancer Center’s Total Cancer Care® Study, the institute seeks to create and share targeted treatments that will improve outcomes, cure disease, extend survivorship and improve quality of life for patients regardless of where they live. The institute is supported by a generous donation from the DeBartolo family.

Read more about Dr. McLeod’s role with the DeBartolo Personalized Medicine Institute at MOFFIT.org/Momentum

**REQUIRED:
Curiosity And An Inquiring Mind**

Photography: Ray Reyes



NAVIGATING THE LINK BETWEEN INFECTION AND CANCER

By George Fuller

ANNA R. GIULIANO, PH.D.



Dr. Giuliano At A Glance

Anna R. Giuliano, Ph.D., is a senior member in Cancer Epidemiology and founding director of the Center for Infection Research in Cancer (CIRC) at Moffitt Cancer Center. Her research focuses on infectious diseases and their causal relationships with various cancers. Most recently it has centered on the relationship between human papillomavirus (HPV) infections and cervical cancer in women and HPV and penile, anal, and oropharyngeal cancers in men.

Read more at MOFFITT.org/Momentum

“She was always thinking outside of the box, breaking rules, and only following what her heart told her was right.”

— Shannon A. Thompson, *November Snow*

This past December, the U.S. Food and Drug Administration approved an eagerly awaited vaccine that protects against nine types of human papillomavirus (HPV) with the potential to increase overall cervical cancer prevention from 70 to 90 percent, nearly eliminating this cancer altogether. The vaccine was Gardasil 9. The leader of the team at the Moffitt Cancer Center was researcher Anna R. Giuliano, Ph.D., director of the Center for Infection Research in Cancer (CIRC) at Moffitt. A February 19 research report in the *New England Journal of Medicine* will tell you more about Gardasil 9 and the research leading to its licensure. But it won't shed any light on Dr. Giuliano. It won't tell you about the pluck and grit it takes to champion a cause such as this. It won't tell you what it takes to be a world-class researcher. Keep reading. You'll meet a multifaceted nonconformist who embraces the attributes of a true researcher.

AN INTEREST BEYOND THE CASUAL

“I know this is going to sound crazy, but ...” Dr. Giuliano sprinkles these words throughout a recounting of her path to where she is today as casually as many of us sprinkle salt on french fries. But nothing she says sounds crazy. Intense. Focused. Unconventional. Offbeat in an inventive way. But not crazy.

Here's one example: “I started out on violin. I thought I was going to Juilliard after high school, but I realized that wasn't going to happen.”

So she veered away.

“I'd always had an interest in populations, in culture and what drives people to behave a certain way, why they believe what they believe.”

Well, OK, granted that might sound a little crazy to the kid sitting next to you at a high school football game. But no matter. Hers was a population game and her interest in it only intensified from that point, becoming more focused and morphing into something even more offbeat as school progressed. As an undergraduate at the State University of New York at Stony Brook working on a B.A. in psychology, she had an inkling that it would make perfect sense to roll everything she loved

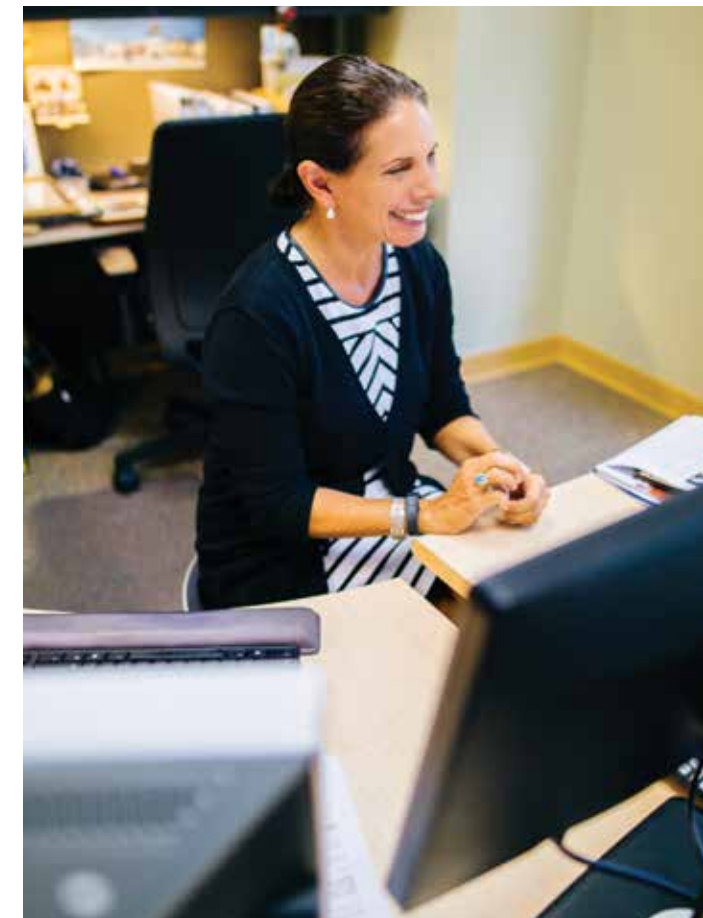
— populations, culture, biology, the cultural differences in diet and how all those factors affect health — into one study. Voilà, nutrition. So when she finished her B.A. in psychology, she went to Tufts University and earned a Ph.D. in nutritional biochemistry. As we said, her interests would never have been described as casual.

But back to Stony Brook.

While some of her classmates wondered what they were going to do on Saturday night, she was mulling over other types of questions. How do we define abnormality? When does memory first occur? How does one imagine where one is in physical space? How do you evaluate a cognitive map? What is schizophrenia besides a construct of the developed world's way of thinking? Speaking of thinking, she seemed to be redlining her brain with regularity.

“Cognitive and behavioral psychology were big at the time,” the psychology/anthropology double major remembers. “So were the studies of culture and population diversity. But I was more interested in probing the origins of the disease than sitting down with people to talk.”

Dr. Giuliano describes how she had spent three years working as an educational counselor. It was enough to make her realize she didn't want to become a clinical psychologist. She really was most comfortable in an academic setting. She loved examining groups of people, and she was good at research. Really good.



She muses, “Sometimes the study is more interesting than the practice. I preferred to study, so I had to rethink everything.”

COMMITMENT LIKE A SOLEMN OATH

“In January of 2012, we started the Center for Infection Research in Cancer here at Moffitt. The idea was to look deeply to find the link between infections and cancer.”

A sharp decision it was. Infection is the cause of nearly 2 million cancer cases a year, accounting for 18 percent of the worldwide cancer burden. Each year, this number increases as new cancer-causing infectious agents are identified.

Most infections can be prevented with vaccines and treated with antivirals and antibiotics, providing an extraordinary opportunity to eradicate certain cancers. In 1995, HPV was thought to cause only cervical cancer. In 2005, evidence indicated that HPV causes multiple cancers. Today, with just one vaccine, it is possible to prevent four types of cancer affecting both women and men.

Thus, CIRC was launched with the purpose of revealing the role of various infectious agents in the origin of cancer and translating that knowledge into novel and effective strategies for the prevention and treatment of cancer.

So why Moffitt? Dr. Giuliano jumps on the answer faster than a Tesla with something to prove. “Moffitt's commitment. They applied no constraints to what I wanted to do with the CIRC. Their commitment allowed me to be as creative as I wanted to be.”

For someone with a curiosity as ferocious as Dr. Giuliano's, boundaries would only inhibit.

Moffitt was smart to recognize that.

CIRC brings together Moffitt's strengths in laboratory, clinical and population sciences, along with ongoing specimen and data collection through Moffitt Total Cancer Care[®], to promote a cohesive, transdisciplinary research effort to better understand the relationship between certain infections and the tumors they cause. Through work with the HPV vaccine, Moffitt has demonstrated its expertise and success in moving research on an infectious agent from the bench to vaccine FDA licensure and, ultimately, to the population.

Dr. Giuliano doesn't do well with rules and controlling regulations.

“My advisor at Tufts said, yes, he could see me in the military, but I'd have to be the general,” she laughs. “In science, there are very few opportunities to work where no one is saying you have to do this or that. But I work best in that kind of environment. I'm constantly questioning.”

Moffitt has given Dr. Giuliano a place where she can create based on sound principles rather than a demanding bureaucracy.

“The questioning part is most important. Why do you believe that it’s this and not that? Maybe we’ve all jumped onto a bandwagon that’s stopped us from finding something important. Believing the results of a researcher because that researcher is ‘famous’ happens all the time, but it’s grossly unproductive.”

Deep humility in the face of success.

Dr. Giuliano has an unpretentious demeanor and is someone you could have fun with while watching a baseball game. Though she’s undoubtedly excelled in research science and academia, and has accolades that bear witness, she exhibits no air of superiority. Not a hint. To her, humility is on equal footing with intelligence. But unlike intelligence, humility is something she set out to learn.

“There are different people I model myself after for different reasons.”

Some have an amazing sense of people. When you walk into their offices, no one else exists except you. Then there are the hyper-brilliant scientists with every right to be aloof but, in fact, are just the opposite.”

Here’s another way humility plays out. “If there’s one key role I play, it’s to inspire the people I work with to do the research they think is most important. You have to see Moffitt. All these young people — excited. The opportunity to create your vision without having to go through layers of bureaucracy.”

She clearly aims to excel past the barrier of expectations. Even her own. No, contentment does not seem to have a home in her wheelhouse.

“There are so many viruses that cause cancer.”

And she’s out to find them all. There’s HPV, which has been discovered to cause multiple cancers in both men and women. There are various strains of Epstein Barr virus and how they may be related to different types of cancer. Helicobacter pylori and stomach cancer. Then there are viruses we’re not sure about. Ones we think might cause cancer. Ones that present with compelling evidence but not enough to make a definitive statement.

“At Moffitt, we have researchers working with viruses and bacteria we know cause cancer and trying to figure out ways to thwart them. We have researchers working on viruses that are suspicious. There are so few of us around the world that we have to collaborate rather than compete. People really don’t expect that.”

CIRC has strategic partners from across the U.S. and around the world.

An unrelenting thirst for knowledge.

“I joke with students and say, once a paper is published, I never look at it again. I can’t remember it. I’m so busy moving forward to investigate all the gaps of knowledge we need to fill. I keep seeing the work we need to do.”

Hers is a thirst that even eight glasses of indisputable facts a day wouldn’t quench.

“My day is divided between running the CIRC, scheduling seminars, raising money and managing my own research portfolio, an international one focused on HPV infection. Then I have educational activities: a Fogarty Training Grant for epidemiology in Morocco, a Senior Scholar award that supports me to mentor junior faculty, things like that.”

She takes a breath when she’s rooting for her son, who’s on the baseball team at Tampa Prep. Or when she’s admiring one of her husband/sculptor’s new pieces.

If indeed you can believe she ever takes a breath. 🍷

Understanding The Connection Between Infectious Agents And Cancer

“Vaccination is a key area of cancer prevention, and the advent of the HPV vaccine has been instrumental in preventing cervical cancer,” says Paul Jacobsen, Ph.D., associate center director, Division of Population Science.

Dr. Giuliano has served as principal investigator of record for numerous trials with the 4-valent Gardasil vaccine in both men and women, as well as studies that showed efficacy against HPV infection and disease in men.

“In particular, she was the lead author of what is called the EVRI study,” Dr. Jacobsen says. “That clinical trial assessed and demonstrated the feasibility of providing HPV vaccination to young women in South Africa who were at high risk of HIV to see if the vaccine can prevent both HIV- and HPV-related endpoints.”

The Center for Infection Research in Cancer at Moffitt, which Dr. Giuliano directs, explores not only the connection between viruses such as HPV and cancer but also the connection between infection with numerous other pathogens and the associated risk of developing other forms of cancer. One such example is the connection between infection with Helicobacter pylori bacteria and stomach cancer.

Read more at MOFFITT.org/Momentum.

EXCELLENCE Personified:

MOFFITT EARNS NURSING MAGNET DESIGNATION

By Michelle Bearden



Photography: Ray Reyes

JOEL STETTLER, R.N. (LEFT), AND JANE FUSILERO, R.N., M.S.N., MBA, NEA-BC





“This is our five-star rating. It makes me so proud to be part of an institution that strives to be the best.”

JOEL STETTLER WAS JUST 9 YEARS OLD WHEN THE DOCTOR BROKE THE NEWS TO HIS PARENTS THAT THEIR SON HAD LEUKEMIA.

For two years, he battled the cancer, going in and out of the hospital for treatments. School and his childhood were constantly disrupted.

Besides the support of his family, he never forgot the nurses at his bedside who eased his fears. To take his mind off his grave situation, they played video games and read to him. They comforted him with cuddles when he was scared and humored him in his lowest moments.

Getting cancer at such an impressionable age and the attention he received proved to be a life-changing experience.

“They made such a difference,” he says of the nurses. “So much that I wanted to go into nursing when I grew up, so I could help others with hands-on care the way they helped me. I knew I could bring a personal perspective to it.”

Stettler, a graduate of Ohio University, is now living that promise he made to himself nearly two decades ago.

When he left the Midwest and moved to Florida four years ago, he landed his dream job: working with leukemia and lymphoma patients on the hematology floor at Moffitt. He readily shares his own story with his charges, giving them hope that one day they, too, can be cancer-free like he is now. He treats his patients like family members, just like he was treated years ago in the pediatric oncology ward.

His caring demeanor and attentive bedside manner haven’t gone unnoticed by management. Jane Fusilero, R.N., chief nursing officer and vice president of Patient Care Services, says Stettler, 29, is the “epitome of what a good nurse is all about.”

“He’s a born leader and a change agent here at Moffitt,” she says. “The kind of care he provides is what makes this institution not just good, but excellent.”

Having a team of nurses like Stettler has vaulted Moffitt into an elite group of hospitals nationwide.

In March 2015, the cancer center earned the prestigious Magnet designation in recognition of its nursing excellence. Awarded by the American Nurses Credentialing Center, the credentialing body of the American Nurses Association (ANA), the designation recognizes nursing professionalism, teamwork, quality patient care and innovations in nursing practices.

Of the nation’s 5,500 health-care institutions, only 7 percent achieve the Magnet designation. And it’s not a given they will



Stettler (right) with Renate Skeens, R.N.

keep it, either. After four years, they have to re-apply for it, meeting the more than 70 standards set forth in the 4,000-page application document and showing improvements that have been made.

“That’s how Magnet works. The process never ends,” Fusilero says. “It’s a journey you’re always on to maintain that excellence.”

Moffitt had tried on two occasions to get this recognition. The third time was the charm.

Much of the credit goes to Fusilero’s astute leadership. The seasoned nurse executive was hired by Moffitt in February 2011, primarily to renew the nursing department and make it Magnet-worthy. Not only was she ready to embrace the challenge, she also was ready to leave the Midwest and move to Florida’s warmer climate.

“The kind of care he provides is what makes this institution not just good, but excellent.”

Her credentials were impressive: Multiple degrees from Ohio State University, Kent State University and Baldwin-Wallace College; two stints with The MetroHealth System in Cleveland, one serving as vice president, chief nursing officer, and another as director of trauma/critical care and medicine; and experience in home health care and hospice work. She had a successful track record in start-up operations and improving overall efficiencies in multiple areas.

Fusilero also brought experience in Magnet project management. Her previous hospital achieved the designation in 2005 and again in 2010.

“You don’t just come into a place and start changing everything,” she says. “It’s a collaborative process that requires teamwork. You’ve got to have everyone on board with it, dedicated to working together and working hard to achieve such a high level of recognition.”

“Making our hospital a place of excellence means taking care of the people who work here as well.”



So why is Magnet recognition so vital to the well-being of a hospital and, ultimately, the local community? According to the ANA, the multitude of benefits include higher patient satisfaction with nurse communication, availability of help and receipt of discharge information. There's a lower risk of 30-day mortality and lower failure to rescue. Among nursing staff, there's a higher job satisfaction.

“You are setting standards that are above the benchmark,” Fusilero says. “You are showing that you're innovative and continuously improving the model of care. Patient outcomes are going to be better for it in the long run.”

Patients rely on Magnet designation as the ultimate credential for high-quality nursing.

Stettler understood all of this. Before moving to Florida, he worked at The Christ Hospital in Cincinnati, a Magnet-designated facility. He knew what it took to get to that level of excellence and the role employees were expected to play to maintain it. So he was all in.

His supervisors recognized that drive and tapped him to be one of the Magnet team ambassadors — a role given to staffers willing to step up and be leaders in the initiative.

Several of the projects inspired by the Magnet initiative — a process that took 2½ years to complete — are now in place at Moffitt. They include giant erasable white boards in the patients' rooms that detail daily goals for the patient; plan of care; lab values; the names of their doctors, nurses, case manager and tech assistant; as well as a projected discharge date. Even motivational messages show up on the boards.

Another procedure developed by one of the floor teams — now implemented throughout the hospital — is the Chemotherapy Double Check system. This bedside checklist is completed by two nurses prior to the state of the chemotherapy administration to ensure the drugs are infused safely without errors.

Fusilero is proud of the Moffitt nursing staff for taking on the Magnet challenge and bringing it to fruition. The commission noted several “exemplars” (initiatives that earned special recognition) now underway at Moffitt, such as identifying and

addressing the disparities in the management of the health-care needs of diverse patient populations, and demonstrating the structures and processes that Moffitt uses to recognize and make visible the contribution of nurses.

“Making our hospital a place of excellence means taking care of people who work here as well,” she says.

She points to yet another Magnet-inspired program now in place: The Honored Nurse Program, an Olympic-style ranking system that awards nurses points over a year for achievements in several areas of service and education. Those who accrue the most points are eligible for a Nurse of the Year recognition in four categories.

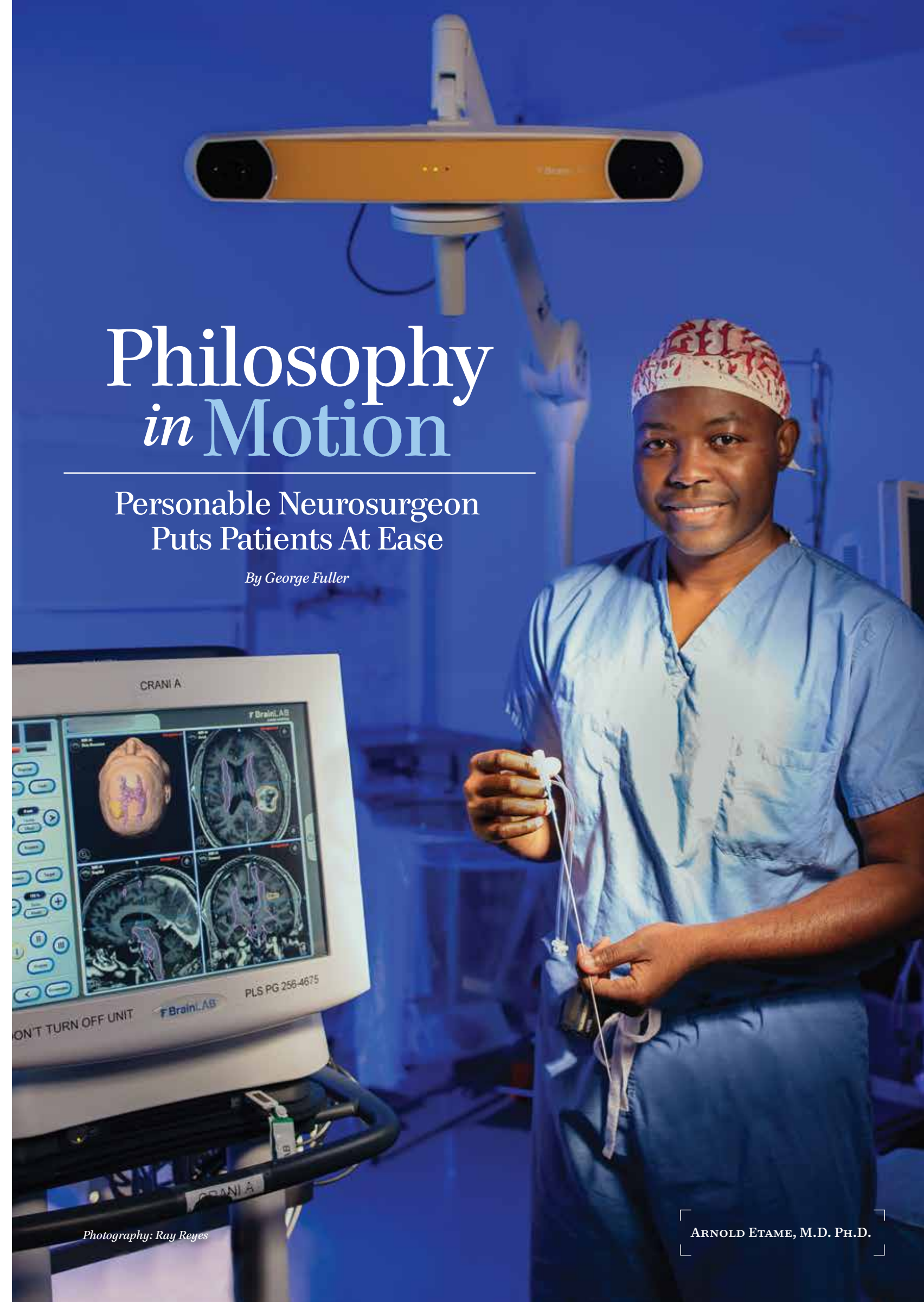
Stettler says Fusilero's leadership and expertise have made an impact on Moffitt that will have lasting positive consequences.

“Jane is the force that came through and put us in the right direction,” he says. “And once you get to this place, you don't want to lose any ground. This is our five-star rating. It makes me so proud to be part of an institution that strives to be the best.”

Philosophy in Motion

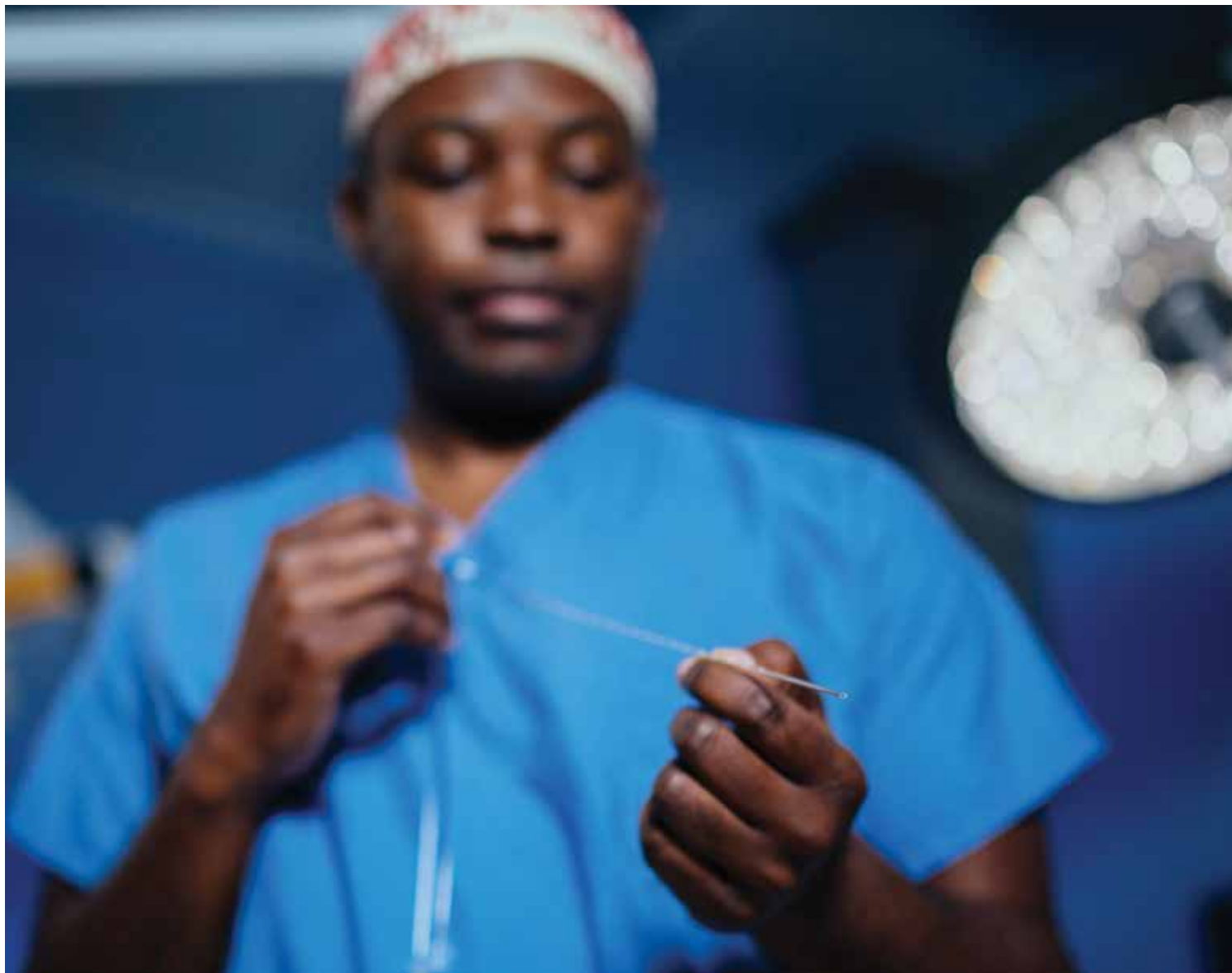
Personable Neurosurgeon Puts Patients At Ease

By George Fuller



Photography: Ray Reyes

ARNOLD ETAME, M.D. PH.D.



IF YOU HAD A SMOOTH VOICE WARM ENOUGH TO MELT BUTTER, YOU MIGHT BECOME A DJ ON AN UNDERGROUND FM RADIO STATION.

If you had a countenance so calming that heart rates lowered when you simply walked into a room, you might become a yoga teacher.

If you could explain brain-twisting technology so that a person of average intellect and education could easily understand it, you might become a technical writer.

But Arnold Etame, M.D., Ph.D., didn't follow any of those career paths. He became a brain surgeon and continues to astonish those who typically don't expect hyper-brilliant people like our good doctor to be warm and down-to-earth.

A recent patient observes: "Dr. Etame was so personable, so informative, which is exactly what you want."

Yes, but personality can't vanquish a tumor. Nor can information put cancer into remission. Although both can put a patient in the right frame of mind for helping to deal with the disease, the doctor's talent and ability certainly are essential.

Speaking of talent, Dr. Etame (pronounced: ā tah' māy) has

gotten a bit of attention lately for his. Specifically for his skill in using lasers to destroy tumors found in the soft tissue of the brain. The technology he uses is called Visualase, an MRI-guided laser ablation technology used to perform minimally invasive neurosurgery. The description that follows may sound a bit like science fiction.

Light energy is directed to soft troublesome lesions by what is likened to a sophisticated GPS guidance system. Energy delivered through a laser probe "cooks" the tissue that needs to be removed. The first step in the operation involves the use of MRI "mapping" that effectively puts the guidance system in place and makes precise targeting possible. Then, Dr. Etame and his laser probe take over. After the procedure, the laser application is removed and the scalp is closed — usually with only one stitch.

The procedure, which is often performed on otherwise inoperable tumors, is pain-free, can be performed while the patient is awake, usually requires only a one-day hospital stay, and subsequently has a shorter recovery time than other brain surgeries.

"Moffitt has a strong focus on research, especially research that will translate into better patient care."

Heady stuff, no?

Dr. Etame's path to laser brain surgery began in a decidedly un-heady fashion, inspired by watching episodes of "Trauma: Life in the ER" and reading the Time magazine's "Heroes of Medicine" series.

"Watching those shows and reading those articles, I gained an enhanced appreciation for the critical role of surgery in medicine. Hence I came to the conclusion that surgery was pretty cool."

Further inspiration came from his neurosurgeon mentors during medical school and residency training.

It turns out, for this self-described ordinary soccer-loving kid, school was also pretty cool. He did well. An understatement that just might rank up there with "Rembrandt was a pretty good painter."

He thrived in the tougher-than-tough British education system adopted by Cameroon, where he grew up. He went on to college at the State University of New York at New Paltz, medical school at University of Iowa ("The neurosurgeons let me hang out with them in the OR") and snagged a Ph.D. from the University of Toronto — where his dissertation focused on the therapeutic use of nanoparticles in treating brain tumors. Next came a research fellowship in neurosurgical oncology at the Labatt Brain Tumour Research Centre-The Hospital For Sick Children in Toronto, a neurosurgery residency with the University of Michigan Health System, an assistant professorship in oncology at the University of South Florida, and finally to Moffitt Cancer Center where he is now an attending neurosurgeon and staff scientist.

Why Moffitt when he could have gone anywhere? He gets suddenly quiet. A steady hand finds his chin and rubs it slightly.

"You know, what I love about this place is the same thing I loved about Toronto. And it's the reason I'm here — the philosophy at both places is that you work on patients to ease their immediate suffering, but you also work in labs to find long-term solutions. Moffitt has a strong focus on research, especially research that will translate into better patient care."

Here he has most certainly positioned himself to put that philosophy into practice.

In one of his research initiatives, Dr. Etame is the principal investigator on a phase III vaccine trial for patients with glioblastoma multiforme, an aggressive and invasive brain tumor.

Dr. Etame's clinical practice focuses on management of primary and metastatic tumors of the brain, spine and peripheral nerves. He performs a substantial number of surgeries in eloquent and non-eloquent regions of the brain with image-guided stereotactic techniques entailing functional MRI and diffusion tractography neuro-navigation. He also directs an awake-brain tumor resection program for patients with tumors close to critical areas for speech and movement. He has performed more than 200 image-guided brain surgeries within the past two years. And in collaboration with the Radiation Oncology Department, he co-directs the stereotactic radiosurgery program for brain and spine metastatic tumors.

"Dr. Etame was so personable, so informative, which is exactly what you want."

But when you talk to Dr. Etame, he makes it sound clear-cut and uncomplicated. His words are simple and gentle. Like a spring breeze gently tossing the leaves of a dogwood tree back and forth in slow motion. Seriously.

You know, one might say Dr. Etame's information delivery system is his strongest suit. But, of course, that wouldn't be exactly right. Performing brain surgery with a laser beam is pretty cool, too.





“The Place Where I Was Supposed To Be”

DARLENE WESTBROCK
SURVIVOR

IF THERE WAS A CURE FOR ACUTE TREPIDATION, I WOULD HAVE SOUGHT IT IMMEDIATELY. THEY WANTED ME TO TALK TO ONE OF DR. ETAME'S PATIENTS ABOUT HER EXPERIENCE. AND I DIDN'T WANT TO.

There are some people (let's call them, uhhhh, angels) who can visit hospitals and chat up patients like they were sitting next to them at the airport. I'm not one of them. I did not believe my intrusion would be welcomed.

The patient was Mrs. Darlene Westbrook, a woman whose brain tumor had been removed but had begun growing back and was leaking fluid, causing swelling that was leading to seizures. Dr. Etame had been called in to perform laser surgery, noteworthy for its remarkable success at destroying tumors in sensitive, inoperable situations.

I needn't have worried at all. From her lounge chair in a cozy corner of Moffitt's infusion center where she was getting chemotherapy, Mrs. Westbrook welcomed me with open arms, even the one attached to the IV, and — with a smile that seemed to stretch from here to forever — put me at ease immediately. I pulled up a chair close to hers, turned my recorder on, and for the next 30 minutes listened to someone who now has a place on my list of “people who have every reason not to be upbeat but are anyway.” Her husband, Jerry, had a few words as well. Here are some quotes from our conversation.

DARLENE WESTBROCK: “Three and a half years ago I was diagnosed with ovarian cancer. My oncologist was at another hospital in town. About a year ago, when he moved out of town, he didn't hesitate in recommending Moffitt. ‘Moffitt really is where you need

to be,’ he said. They work as a team here. Dr. Khoury (Moffitt neuro-oncologist Michael Khoury, M.D.) was also on the team. He gave us options. He laid them out very clearly. One of the options was laser surgery with Dr. Etame.”

JERRY WESTBROCK: “Dr. Etame is definitely not what we expected. Very personable. He has this low-key approach. Very calming voice. He makes you feel relaxed and confident. He asked a lot of questions. I think we talked for about an hour. I knew we were in the right place with the right doctor. After surgery, he showed us slides of what he'd done. He even drew pictures for us with his pen. You expect a brain surgeon to get in there and get it done and that's it. You just don't expect bedside manner with brain surgery. Or we didn't anyway.”

DARLENE WESTBROCK: “I know now Moffitt is the place I was supposed to be.”



Darlene and Jerry Westbrook

DEFYING Metastatic Melanoma:

Tarpon Springs Roofing Contractor Thrives On Keytruda Trial

By Michelle Bearden

Carl Paulk is a dedicated ambassador for sun protection. He's never outside without a wide-brimmed hat that covers his ears and neck, and SPF 70 sunblock on any exposed skin. He urges friends and strangers alike to get regular dermatology checkups. And he preaches about early detection at every chance he gets. If you see a small bump or mole, he says, get it checked – immediately.

He should know. Working in the family roofing business for more than 30 years kept him in the hot sun most days and nearly led to Paulk's death.

In 2006, the Tarpon Springs man, then 57, felt a lump behind his left ear. His dermatologist took a biopsy on a Thursday, and the lump bled. The next day she called Paulk with the worst news possible: melanoma. She was able to schedule an appointment with him at Moffitt for Monday.

“You get news like this, and your whole world stops,” Paulk says.

Unlike many other skin cancers, melanoma cells can spread quickly to vital organs. There was a ray of hope: If caught early, the disease is almost always curable. But if it gets just a little bit thicker, or if the cells break free and get into the lymph nodes, it can turn into a deadly and treatment-resistant disease.

Paulk and his wife, Sharon, met with Moffitt surgeon Gerard Mosiello, M.D., to discuss the upcoming surgical procedure. Fortunately, the cancer had not spread to Paulk's lymph nodes.

After surgery Paulk went through an arduous schedule of daily radiation for a month. He then underwent a 30-day round of chemotherapy, followed by interferon three times a week for a year. After periodic checkups, Paulk seemed to be responding well and was feeling optimistic that he would get an all-clear report. But it wasn't to be. Instead, the doctor found that the cancer had spread to his neck. Tests revealed three tumors and the worst possible news: stage 4 melanoma.

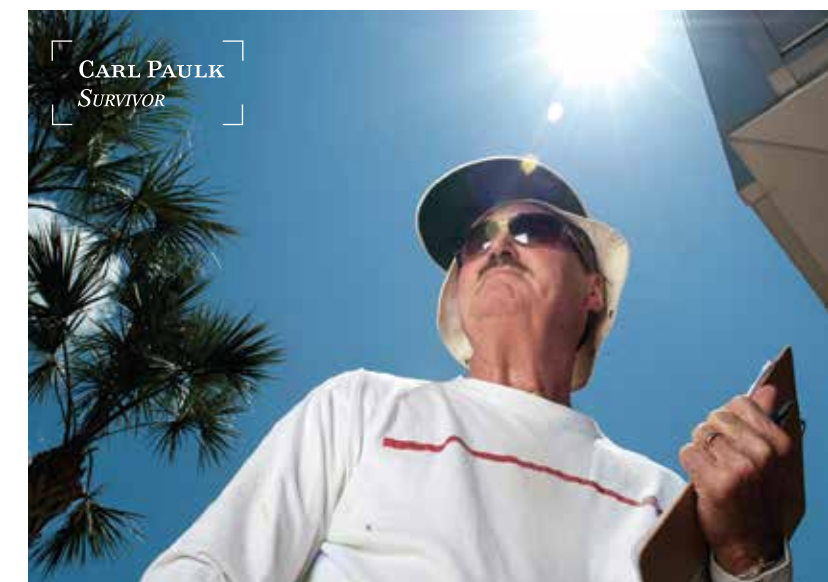
Paulk enrolled in a clinical trial with an experimental drug, but after a few treatments, it became clear that was not an option. His liver enzymes had skyrocketed. His weight was dropping, and he was weak. But another option was available – this time a trial with pembrolizumab (Keytruda®), an anti-PD-1 inhibitor. Paulk felt this was his best chance at survival. PD-1 refers to a cellular pathway that restricts the body's immune system from attacking melanoma cells.

In October 2012, he began a regimen that mandated visits to

Moffitt for treatment every three weeks for an undetermined amount of time. The fact that Moffitt is one of the world leaders in early-phase and mid-phase trials in metastatic melanoma also meant Paulk was in the best possible place to battle his particular disease.

“I was willing to try anything,” Paulk says of his decision. “It was too early in the development stages to know if it would work, but I felt the alternatives weren't too promising.”

Almost immediately, his condition began to improve. Every 12 weeks, he underwent brain and body scans to monitor his progress. The tumors – one large and two small ones – began



CARL PAULK
SURVIVOR

Photography: Cliff McBride

shrinking. Even better, he didn't have side effects generally associated with some drugs. The roofing company is still in operation, with Paulk at the helm and his middle daughter, Stephanie, working alongside him. He feels strong enough that he still climbs on roofs to get estimates, but he leaves the physical labor to his workers.

And more good news: In September 2014, two years after Paulk began the trial, the U.S. Food and Drug Administration approved the new cancer immunotherapy for treatment of patients with advanced or unresectable melanoma who are no longer responding to other drugs. The approval is a major milestone in the treatment of the disease.

Though the trial is complete, Paulk continues to get the drug every three weeks. He will stick with the treatment indefinitely, so researchers can determine whether there are any long-term ramifications. Meanwhile, his tumors continue to get smaller.



Carmen Goitia had nothing but good memories from her previous two vacations to America.

But the third time the Puerto Rican woman scheduled a visit to the United States was not for pleasure. She came to Moffitt Cancer Center in Tampa for a chance to save her life.

For anyone undergoing treatment for a life-threatening disease, navigating the health-care system can be emotionally draining. It only intensifies if you're from another country and your first language is not English.

Fortunately, she never had to endure that potentially difficult experience. With Moffitt's International Referral Services, Goitia, 54, was taken under the wings of caring staff members from the moment she arrived.

"It happened when I first walked through the doors of the hospital and got a big warm welcome," says the retired insurance adjuster. "And it's been that way ever since. Any questions I have, any help I need, someone is there. It has made such a difference. It's allowed me to concentrate on getting healthy, not focusing on handling all the bureaucracy."

That kind of heartfelt endorsement is just what Martha Sanz likes to hear. As manager of the program that now serves some 100 international patients and U.S. citizens living abroad each month, Sanz says there is one overriding goal of the multitasking program.

"We want to ease their minds and bring down their anxiety," she says. "They already have enough going on in dealing with cancer. Let us take on some of the burden to make this journey less stressful."

When Goitia was diagnosed in July 2012 with acute myeloid leukemia (AML), a cancer of the myeloid line of blood cells, she had one main thought: "I want to live."

Working with Jose Ochoa-Bayona, M.D., a medical oncologist with Moffitt's Blood and Marrow Transplant Department, who came to Puerto Rico once a month to see patients, Goitia was prepared for an aggressive fight. She agreed to a rigorous treatment of blood transfusions and chemotherapy to halt the rapid growth of abnormal white blood cells that accumulate in the bone marrow and interfere with the production of normal blood cells.

At first, it worked. After the seventh and final chemo treatment, she went into remission for a year. But in December 2013, another checkup revealed that the cancer had returned.

This time, her doctor told her she needed a stem-cell transplant, and she needed one immediately.

The good news was that her older sister, Clarissa, was a perfect match. According to Dr. Ochoa, there's only a 25 percent probability of that happening in children from the same parents.

But there was bad news, too: Currently in Puerto Rico, those



Martha Sanz, Jose Ochoa-Bayona, M.D., Carmen Goitia Micheo

types of transplants are not performed. She would have to come to the United States for the procedure.

While she felt very fortunate to be in the care of Dr. Ochoa, traveling to the U.S. and going to a strange hospital was nerve-racking. She spoke English, but it wasn't her first language. What if she couldn't communicate her concerns with medical staff? Where would she and her sister stay? How would she attend to problems that might arise back home during her hospital stay?

After insurance issues were sorted out, the Goitia sisters arrived at Moffitt a month later. Their assigned coordinator from the referral team met them at Moffitt that first morning and welcomed them with a hearty "Bienvenida!" After getting a tour of the hospital and introductions to the medical staff, the two women felt at ease.

"Even the little things, like how to use the fax machine or finding the closest coffee shop," says Clarissa Goitia, 69. "Those are the things that can end up causing so much frustration."

The International Patient Referral Services, which Sanz was hired to develop in 1999, provides three stages of assistance. For the pre-visit, staffers will gather all intake information, collect necessary medical records, help the family with reduced-cost lodging and transportation, and assist with visa management and any embassy travel requisites prior to arrival.

During the patient's visit or long-term stay, the coordinator will collaborate with various Moffitt departments to ensure the appropriate patient care, from language services to case management. The coordinator provides community resource information from banking to dining options. If the patient needs access to business services, such as faxes and shipping, the coordinator will assist with that. If the stay has to be extended for medical reasons, the coordinator will work with Immigration Services.

The service has added another component to its offerings: Online consulting for international patients to receive a second opinion

from a Moffitt specialist without having to travel to the center. Through the hospital's portal, and with the referring physician's participation, patients are able to confirm a diagnosis, review current treatment plans and explore possible treatments outside their country, including clinical trials.

There's a fee for this service, but it's a cost-effective alternative for some patients, Sanz says. "They may be too sick to travel, or can't afford to make the trip," she notes. "It's a way to tap into the vast resources we have here."

The majority of the patients using the referral services come from the Caribbean, followed by South America, Canada, Europe and the Middle East. Moffitt is prepared for people of all nationalities, though, with an interpreter service that has access to more than 100 languages.

"Communication is always a big issue," Sanz says. "That's the first step in breaking down barriers. Developing personal relationships is important, too."

"This whole experience has taught me to live every day fully," Goitia says. "My sister and my doctor saved my life. Coming here to Moffitt saved my life. And I have so much more living to do."

"The practice of medicine is more than a day job. It calls for a service to the society in general, but in particular to vulnerable populations," Dr. Ochoa says. "Providing services for these patients has been very rewarding and fulfilling for me."

Visit MOFFITT.org/Momentum to read the full-length story about Moffitt's Patient Experience and International Referral Services.



The Moffitt Patient Experience

By Janan Talafer

As the director of the newly created Department of Patient Experience, Karenne Levy is committed to enhancing the level of personalized service and care patients receive at Moffitt, a world-class center for cancer treatment.

The goal is to enhance the patient experience by focusing on the importance of the human connection. It is about empathy and understanding how the patient and his or her family feel. "Patients who have been given a diagnosis of cancer are scared, anxious and many times feeling hopeless," Levy says. "What we need to do is put out a helping hand, ease their anxiety and assist them during this very vulnerable period in their life."

ABOUT MOFFITT CANCER CENTER

Moffitt Cancer Center in Tampa, Florida, has made a lasting commitment to the prevention and cure of cancer, working tirelessly in the areas of patient care, research and education.

MISSION

To contribute to the prevention and cure of cancer

VISION

To transform cancer care through service, science and partnership

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NOTABLE

FDA APPROVES NEW LUNG CANCER IMMUNOTHERAPY. Clinical trials held at Moffitt helped lead to the U.S. Food and Drug Administration approval of Opdivo (nivolumab), the first and only immunotherapy for patients with advanced non-small cell lung cancer.

MOFFITT TREATS FIRST PATIENT WITH KTE-C19 THERAPY. Moffitt treated the first patient nationally in a clinical trial of KTE-C19, an investigational therapy for aggressive non-Hodgkin lymphoma.

KAY YOW CANCER FUND AWARDS \$1.25 MILLION WOMEN'S CANCER RESEARCH GRANT. The Kay Yow Cancer Fund®, in partnership and collaboration with The V Foundation for Cancer Research, presented a \$1.25 million ovarian cancer research grant to Moffitt Cancer Center.

DR. LIST RECEIVES 2014 LEADERSHIP IN SCIENCE AWARD Alan F. List, M.D., Moffitt president and CEO, received the 2014 Leadership in Science Award from the Aplastic Anemia & MDS International Foundation. Dr. List was recognized for his contributions to the fields of bone marrow failure disease treatment and/or research.

Visit MOFFITT.org to find out about our upcoming events

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