



MOFFITT
MOMENTUM®

PORTRAITS OF HOPE, INNOVATION AND TRIUMPH

TENACIOUS HOPE

Survivor credits research,
modern therapy

A TRIUMPHANT ALLIANCE

Life partners speak
the patient's language

DREAMS AND INNOVATION

Young scientists persevere to
find novel cures



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

MOFFITT MOMENTUM®
VOLUME 2, ISSUE 1

Dear Friends,

Partnerships include patients, family members, caregivers, volunteers, physicians, research scientists, donors, fundraisers, health advocates and more. These varied alliances are united in Moffitt’s mission to contribute to the prevention and cure of cancer.

In this issue, “Team Mulvey” describes a 49-year endearing partnership between Jerry, a cancer survivor, and his wife, Trudy. Having overcome Jerry’s diagnosis and stem cell transplant together, they now volunteer in a Moffitt clinic waiting room. They make a 120-mile round trip almost every week to honor their commitment.

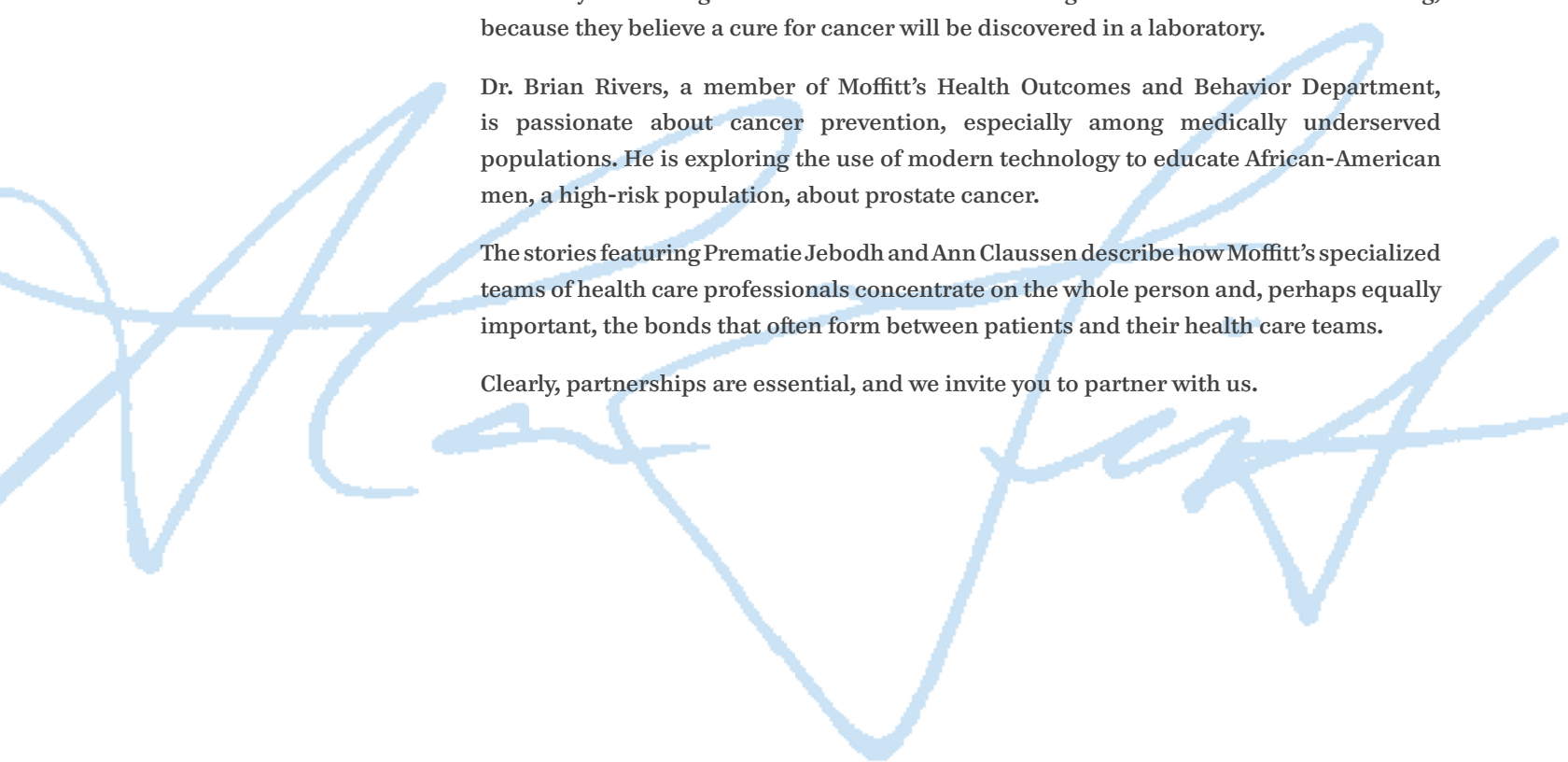
Sheryl Anderman shared her patient testimony and why breast cancer research is so important at an appreciation reception for The Shula Foundation. At the event, Don Shula announced a \$1.5 million gift to establish a fund to support scientific research aimed at generating new treatment and prevention strategies for breast cancer patients.

Each article within this magazine embodies the concept of partnering. You will read of the collaborative efforts of scientists as they bridge the gap between discoveries and the realization of new and better therapies. Postdocs at Moffitt hone their expertise in chemistry and biological science while also advocating for biomedical research funding, because they believe a cure for cancer will be discovered in a laboratory.

Dr. Brian Rivers, a member of Moffitt’s Health Outcomes and Behavior Department, is passionate about cancer prevention, especially among medically underserved populations. He is exploring the use of modern technology to educate African-American men, a high-risk population, about prostate cancer.

The stories featuring Prematie Jebodh and Ann Claussen describe how Moffitt’s specialized teams of health care professionals concentrate on the whole person and, perhaps equally important, the bonds that often form between patients and their health care teams.

Clearly, partnerships are essential, and we invite you to partner with us.



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Survival and service



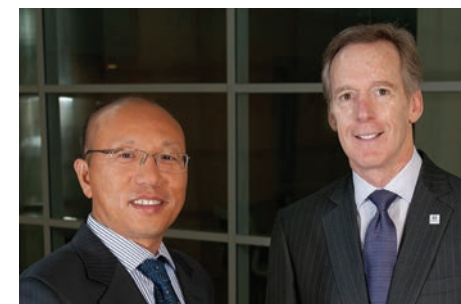
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Sheryl Anderman leaves nothing to chance

TEAM MULVEY

AN ENDURING, ENDEARING ALLIANCE

by George Fuller

If the milk of human kindness could be bottled and sold, Trudy and Jerry Mulvey would keep the bottling plant in business.



JERRY AND TRUDY MULVEY

Photography: Cliff McBride

They, of course, would dispute the suggestion until the cows come home. Because that's the effect kindness has on the kindness-givers, right? It conspires with its cousin humility to deflect attention, to immediately deny that there's anything special going on. It's that notion that, aww ... we're just like anybody else. But Trudy and Jerry aren't like anybody else.

One day while Jerry was lying in bed at Moffitt recovering from a stem cell transplant to treat his multiple myeloma (a blood cancer), foggy and feeling mortal, he said something that surprised Trudy. No, it wasn't an off-beat item stolen from pages of "1000 Things To Do Before You Die." Jerry did not want to jump out of bed and hike the Amalfi Coast, to drink fresh-squeezed papaya juice on a beach in Tahiti or engage in any sort of trendy diversion.

Jerry said in selfless fashion, "When I'm feeling better, I want to volunteer here." And whether surprised or not, Trudy's reply was characteristic of the bond they'd super-glued over the course of their long life together: "I'll volunteer with you."

Today, four years since Jerry's transplant, under the auspices of Moffitt's Patient and Family Advisory Program, Team Mulvey (yes, they actually call themselves that) volunteers in the waiting room of the Blood and Marrow Transplant unit at Moffitt "just talking to people." Jerry, a patient himself, speaks a patient's language. Trudy, a caregiver herself, knows what a caregiver needs to hear.

Jerry explains: "I'll walk over to someone and say I'm a volunteer here but I'm also a patient. When I tell them I had a transplant, I'm in. They start asking a million questions. And I just say whatever comes out of my mouth. I don't practice anything."

Trudy follows suit in her own humble style. Although Jerry's a natural, she is a trained professional. "What they don't know," whispers Jerry, "is that she knows how to counsel people because she was a crisis intervention nurse." Not to mention the fact that she has a master's degree in nursing from Yale University.

But she doesn't tell patients or caregivers this because "I don't want the patients to feel like they get special information from me that the other volunteers can't give them."

Trudy continues, "Jerry and I work very well together. If I'm talking to a patient that I know could benefit from talking to him,



"When I'm feeling better, I want to volunteer here." And whether surprised or not, Trudy's reply was characteristic ... "I'll volunteer with you."



Together, they coach both patients and caregivers ... especially on the importance of staying positive.

I'll get him and make an introduction. Or he might come over to me and ask: 'Would you talk to Mary or John because they're going to be the caretakers and they have some questions?'"

Together, they coach both patients and caregivers on the ins and outs of whatever the people are going through and especially on the importance of staying positive.

"Just because you have cancer doesn't mean you can't do stuff, I tell them," says Jerry. "The things you did before, there's a good chance you're going to get to do them again. And more. And your attitude is going to have a lot to do with your recovery."

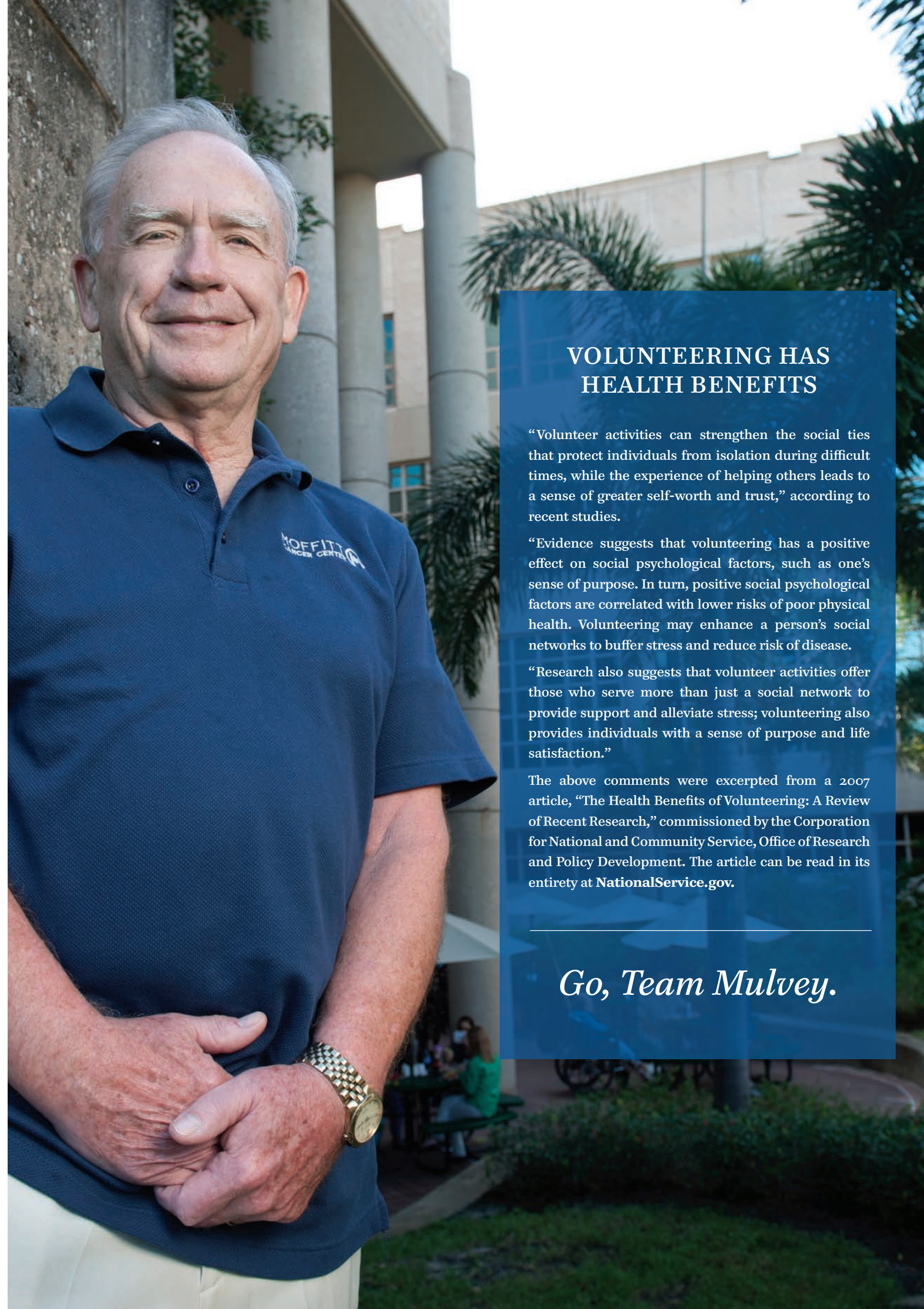
Go, Team Mulvey. The two have been married for 49 years. Before retiring, Jerry was a district manager for the U.S. Postal Service and Trudy was a nurse practitioner. They raised two children, and it was just a few years ago, when at 69, Jerry was diagnosed with stage-three multiple myeloma.

"Fortunately, we were in Sarasota, just down the road from Moffitt" and from renowned medical oncologist Daniel Sullivan, M.D. Immediately, they made their "we're in this together" pact. Jerry would be in charge of optimism and exercise. (He was then, and still is, bicycle riding more miles a week than many of us ride in a year.) Trudy would be his support team in charge of everything else. "I remember you cried once," Jerry said to Trudy. "You said, 'just let me do this one time. And I won't do it anymore.'"

Under Dr. Sullivan's care, Jerry went through chemotherapy and a stem cell transplant at Moffitt Cancer Center. Eleven months later, Jerry biked 180 miles to raise money for charity. Two years later, he rode 100 miles to benefit Moffitt's "Cure on Wheels." Trudy, of course, was his ride support volunteer. Then, two years ago, Team Mulvey began volunteering at Moffitt. And they selflessly make the 120-mile round trip from Sarasota to Tampa about once a week.

In one last attempt to make us believe there's nothing special about Team Mulvey, Jerry says, "All this stuff about us, I hate for you to tell people because it makes us sound like we're some wonderful characters. We're not. It's just our story." 📌

"The things you did before, there's a good chance you're going to get to do them again. And more."



VOLUNTEERING HAS HEALTH BENEFITS

"Volunteer activities can strengthen the social ties that protect individuals from isolation during difficult times, while the experience of helping others leads to a sense of greater self-worth and trust," according to recent studies.

"Evidence suggests that volunteering has a positive effect on social psychological factors, such as one's sense of purpose. In turn, positive social psychological factors are correlated with lower risks of poor physical health. Volunteering may enhance a person's social networks to buffer stress and reduce risk of disease.

"Research also suggests that volunteer activities offer those who serve more than just a social network to provide support and alleviate stress; volunteering also provides individuals with a sense of purpose and life satisfaction."

The above comments were excerpted from a 2007 article, "The Health Benefits of Volunteering: A Review of Recent Research," commissioned by the Corporation for National and Community Service, Office of Research and Policy Development. The article can be read in its entirety at NationalService.gov.

Go, Team Mulvey.

A SNAPSHOT of DR. BRIAN RIVERS

by George Fuller

Brian Rivers, Ph.D., leads research in the area of men's oncology, with a particular focus on medically underserved populations and cancer health disparities.

HE WAS BORN IN BUFFALO, N.Y., AND GREW UP IN ATLANTA. HE RECEIVED HIS BACHELOR OF SCIENCE DEGREE IN BIOLOGY FROM VANDERBILT UNIVERSITY, HIS MASTER'S IN PUBLIC HEALTH WITH A CONCENTRATION IN SOCIAL AND BEHAVIORAL SCIENCE FROM MOREHOUSE SCHOOL OF MEDICINE, AND HIS PH.D. IN HEALTH EDUCATION AND HEALTH PROMOTION FROM THE UNIVERSITY OF ALABAMA AND THE UNIVERSITY OF ALABAMA AT BIRMINGHAM.

Before joining the staff at Moffitt, Dr. Rivers coordinated the Center for the Study of Health Disparities at Texas A&M University, was an Emerging Leader in Public Health fellow with the Kellogg's Foundation at the University of North Carolina Chapel Hill and was a fellow at Moffitt Cancer Center in a program called "Cancer, Culture and Literacy." A year and a half ago, he was invited to be part of the national work group, national experts from the American Cancer Society. The group wrote the first article on guidelines for addressing prostate cancer survivorship.

He is married to Desiree Rivers, Ph.D., MSPH, the program director of the Florida Health Equity Research Institute and the former director of the Center for Equal Health. She also teaches courses on health disparities at the USF Morsani College of Medicine and the USF College of Public Health. They have three daughters, ages 10, 6 and 3. He once regularly played tennis and golf and went to the gym, and plans to do so again when the kids' interest in "Frozen" sing-a-longs and Disney World wanes.

"I'm a life learner. I love out-of-the-box approaches, novel approaches, doing something new."

BRIAN RIVERS, PH.D.

A PARADIGM SHIFT

Aim of Sleek New App: To Dispel Health Disparities

In 2014 Dr. Rivers was awarded a five-year National Cancer Institute research project grant for \$2,106,250, titled *A Health IT Based Psychoeducational Intervention for African American Prostate Cancer*.

“When you’re passionate about something, you never work a day in your life. I can truly say that about my work in prostate cancer. That’s my focus. To me, it’s not a job but more a mission that I’m on.”

Thus began an interview with one of the most intensely passionate men you’d ever hope to meet, Dr. Brian Rivers. He’s the kind of guy you wish you had on your side, every time sides were chosen.

► *What’s the deal with African-American men and prostate cancer?*

African-American men, for reasons we have yet to determine, are disproportionately impacted by prostate cancer. There are more cases. And they’re more likely to die. Some studies have suggested the reason for the disparity is genetic. But that only accounts for about 20 percent of the disparity. I believe much of the problem is behavioral. There are harmful behaviors we can steer them away from and helpful behaviors we can steer them toward. Essentially, this grant is for what you might call an educational intervention. We do this by going out into the African-American community and giving men information about prostate cancer, but also by getting into and understanding their psyche, to make sure the information is relevant, that it’s information they can actually act on.

► *How are you getting the word out?*

We thought, should we do it via DVD? Podcast? Then we thought, why not do an app? Some people think that individuals from minority communities do not have access to technology. But consumer data tells us otherwise. They have cell phones and tablet computers. And they access the Internet with them. So we thought, an app is perfect. It can enhance the doctor-patient relationship with information about screenings and treatment, changes they could make in their lifestyle to better their chances of survival. Laying out all the options. Most importantly answering the question, “I’ve been recently diagnosed with prostate cancer. Now what do I do?” So in collaboration with the Florida Institute for Human and Machine Cognition, we developed an app. Tested it at barber shops, beauty salons, laundromats, health fairs,

wherever we could find African-American men between the ages of 40 and 75. And it went over well.

► *An app. What a great idea!*

Getting the app into iTunes is the centerpiece of our efforts. I think we’re really on the cusp of something different. We’re actually calling for a paradigm shift. There aren’t many health apps. And I can’t find one that has actually ventured into this whole notion of using mobile health technology to address prostate cancer disparities in a community-based setting.

► *Where does this intense interest in prostate cancer come from?*

I did a genogram in graduate school, and I saw that prostate cancer was running through my family. Honestly, I had never heard of prostate cancer, let alone understood what the prostate gland did. Delving in, I learned that as an African-American man, I was at an increased risk for this thing. As I began doing my homework, I couldn’t find many of the answers I was looking for. Should I be screened? When should I be screened? If I have an abnormal screening, what should I do? If I have a biopsy and cancer is confirmed, what are my options? If I go through radiation or surgery, then what happens? Erectile dysfunction, incontinence, wow, now we’re dealing with quality of life. So now the decision might have been different understanding the outcome. That started me on this journey. I did my master thesis on prostate cancer and ended up doing my dissertation on it as well.

► *Why are you here at Moffitt and not someplace else?*

Because I think that Moffitt is the future of how we address cancer. A young institution on the cutting edge of some great work. Very progressive. Independent. Willing to push the research paradigm into new areas the scientific field has yet to realize.

► *There’s also something about being part of a team, isn’t there?*

Definitely. I love being part of such a great team. At some other institutions, people are all working in their silos. The biologists, psychologists. Doing their own things. But here, it’s interdisciplinary. We all work together. That’s a little unusual in cancer research, but it’s crucial because cancer is extremely complicated. Being part of a comprehensive cancer center, you have all sorts of experts on your team. The potential is immense. From Dr. Julio Pow-Sang in genitourinary oncology,

to Dr. B. Lee Green in diversity and community relations, to Dr. Cathy Meade in cancer education, to Dr. Paul Jacobsen in psycho-oncology. I can pull in anybody I need to pull in. And the strength is in realizing that I don’t have all the skills, but when I work together as part of a team, that’s when we’re most effective. That’s when we can bring our best to cancer patients.

► *Where does your motivation come from? Parents, teachers, mentors, faith?*

It’s a combination. Faith plays a big role. Realizing that your true purpose is less about you and more about others around you. If you see a problem or need, you should do what you can to address it to the best of your ability. I’ve been taught that. And I think a lot of my colleagues share those sentiments. And you can tell by the leadership at the cancer center that they definitely share those sentiments.

► *Do you have a mentor?*

Oh, yes. I learned early on that if you really want to be successful, you should have between five and seven from different fields. Five will affirm you and say you’re great. You’re the best. You’re awesome. But you need two to say, “You need to go back to the drawing board on that.” One who’s been very important to me in the African-American community is a man named Emerson Tillman. We’ve been working together for about seven years, and I really value his input. He brings a reality to what I’m doing. Helps me see beyond the science, the numbers and analyses and p-values and research papers and the grants. He asks the tough questions. “Can people relate to this?” “Will it really make a difference?” Emerson will not hesitate to tell me, “That’s a great idea, but you’re totally not making the impact that you could.”

► *What does that man in the mirror say to you?*

Keep it simple. And keep yourself open to criticism. Now whenever I’m writing a grant or publishing a paper or in a work group or whatever, I make an effort to make sure what I’m saying is resonating. Because at the end of the day, you can say a lot of stuff and have no impact at all.

► *Circling back around, what happens when the grant runs out?*

We were speaking about mentors earlier. I also have one from the business community to help me figure out how we can sustain these initiatives. Once the grant leaves, the community will be scratching its head saying, now what do we do? What’s next? Do I tell them the grant was only for a few years and that I’ll write another one and be back when I find the money? That’s not a healthy relationship. They want this app to be something we can sustain, something that can really make a difference.

► *What’s the one thing you’d like people to know about you?*

Besides the fact that I love to collaborate? I’m a life learner. I love out-of-the-box approaches, novel approaches, doing something new. I don’t think we were put here to be replicas during our life span. I was put here to put my ego aside and come up with something new and different. I always ask myself, “Did I give them my best?”

“When you’re passionate about something, you never work a day in your life.”





SHERYL ANDERMAN SHARES HER JOURNEY

And Why Breast Cancer Research Is Vital

by Michelle Bearden

OF ALL THE MILESTONES IN SHERYL ANDERMAN'S LIFE, THE ONE THAT SHOOK HER WORLD CAME ON JULY 9, 2013.

On that morning, the Ft. Lauderdale, Fla., woman got the call confirming her worst suspicions. She learned the recent tests showed her tumor had tested positively for cancer.

At that moment, Anderman, then 57, was on her way to joining the more than 2.8 million breast cancer survivors in the United States. During her journey, she would learn that breast cancer is the most common cancer in females and that its mortality rate is second only to lung cancer.

"It was like an out-of-body experience," she recalls. "It didn't seem like it was really happening. Once it sunk in, I knew from that day forward, my life would never be the same."

Anderman admits the fear came at her "in every direction." It brought back a rush of bad memories centered on her late mother, diagnosed with soft-tissue sarcoma at age 71. Eighteen months later, she was dead. Because mother and daughter resembled each other in so many ways, Anderman feared that she, too, would suffer the same fate.

She picked up the phone and called her husband, Wayne, a private wealth manager.

“They wanted to get things moving now. Not start the process in a month and drag it out, but as soon as possible.”

“IT’S NOT THE NEWS WE WANTED TO HEAR,” SHE TOLD HIM, HER VOICE BREAKING. TALKING ON THE PHONE MADE IT EVEN MORE SURREAL. SO SHE GOT IN HER CAR AND MADE A TEARFUL DRIVE TO HIS OFFICE. SHE NEEDED TO BE HELD AND HUGGED AND TOLD EVERYTHING WOULD BE OK. EVEN IF SHE DIDN’T BELIEVE IT.

That was the beginning of Anderman’s cancer journey.

What she has learned in the past two years could fill a book. Though she describes herself as a private person by nature, she will share her story as a survivor any time that a Moffitt representative makes a request. That’s because she says she owes “everything” to the medical institution that guided her from the diagnosis through the treatment and now the follow-up care.

Anderman kept good on her promise on July 15, 2014, when she shared her patient testimony at an appreciation reception for The Don Shula Foundation, where Don Shula, legendary former coach of the Miami Dolphins, announced a \$1.5 million gift to establish The Don Shula Breast Cancer Research Fund. Scientists at Moffitt, the only National Cancer Institute-designated comprehensive cancer center based in Florida, will use that fund to support cutting-edge research projects aimed at generating new treatment and prevention strategies for breast cancer patients.

Anderman says she’s alive today because of dedicated professionals with the ultimate goal of eradicating this disease — and donors like Shula who give them the financial backing to find those answers. Without this support, she knows she could have been one of some 40,000 women in the U.S. who died of breast cancer in 2014.

“I have a lot to be grateful for,” Anderman says. “I don’t take any of this for granted.”

It began, as many breast cancer stories, with an annual mammogram.

Anderman had no reason to suspect anything was wrong. She went to a local south Florida clinic on April 17, 2013, for a routine screening, something she did without fail every year.

Only this time, the screening wasn’t so routine, and it brought the first wave of unsettling news. The mammogram revealed

something suspicious, so a diagnostic screening was scheduled a month later. Then in June, an MRI was ordered. The results of that test indicated the suspicious finding likely was cancer.

Anderman is not a woman who leaves things to chance. As the operations manager of a family-owned hotel construction business, she is committed to managing details and schedules. So she approached her personal medical crisis with the same organizational fervor that she devotes to her job.

“Of all the fears I had, the worst was that the medical system was so large that I would get lost in it,” she says. “And when that happens, do you begin to feel like a number? Will the bureaucracy take away any feeling that you’re a human being? And how can you be assured that you will get the right treatment to stop the cancer?”

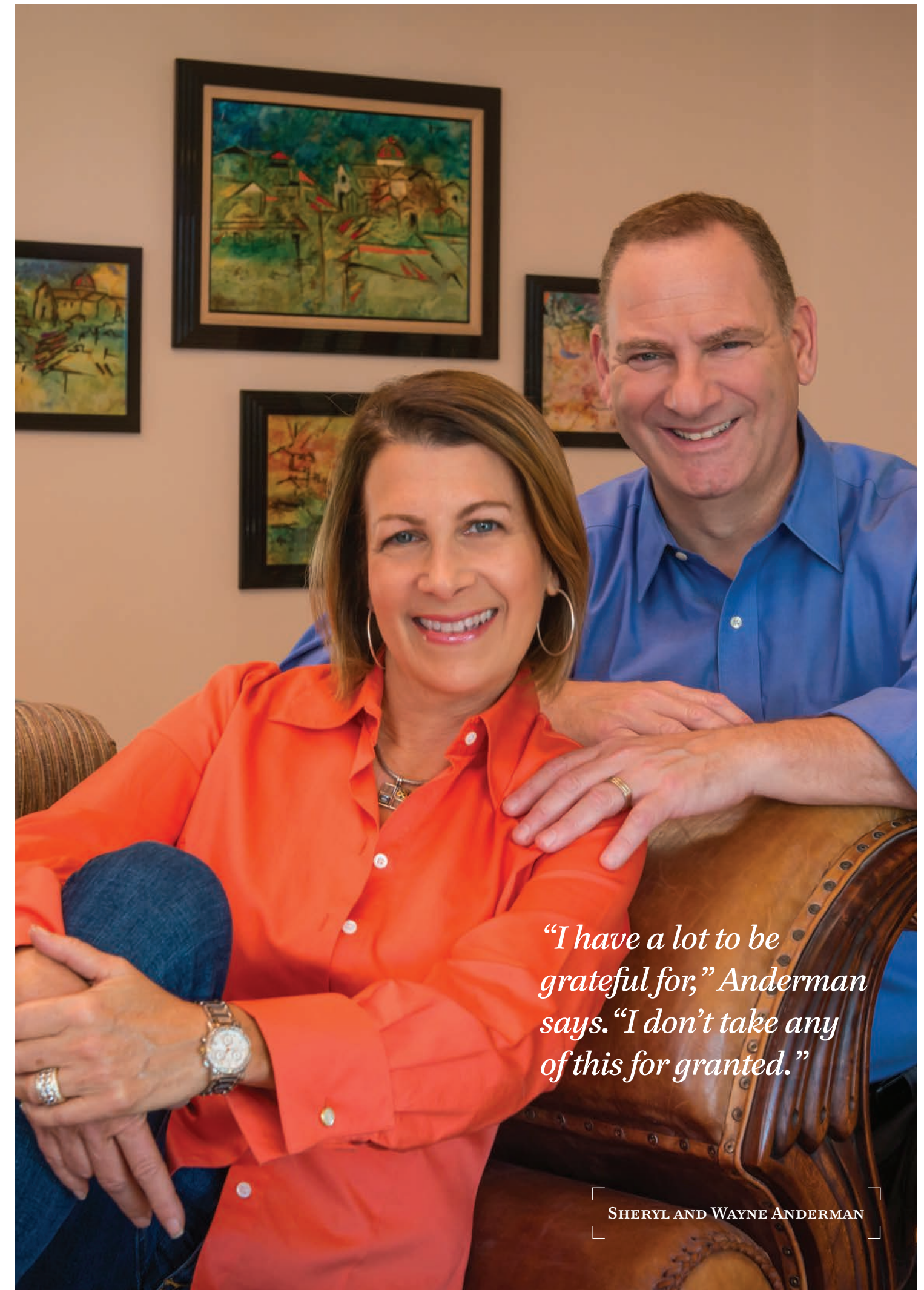
Although she still didn’t have a solid diagnosis, she felt preparation was the key to her sanity. So she spent countless hours on the computer, researching treatment centers, accessing cancer blogs, learning about innovative and experimental drugs. She became her own best advocate.

The few people she confided in gave her plenty of advice. But Anderman had to follow her own course. What she wanted was a hospital with a women’s center, a breast cancer clinic and a National Cancer Institute designation — all rolled into one. Moffitt Cancer Center came up time and time again.

In previous inquiries to other clinics about second opinions and further tests, Anderman was told it would be several weeks before she could get an appointment. For people worrying about life-and-death issues and the fate of their futures, that seemed like an eternity. But when Anderman made her first call to Moffitt, it was a different story.

“It was like, whoosh! I felt like I was being sucked into a vacuum, in a good way,” she says. “They wanted to get things moving now. Not start the process in a month and drag it out, but as soon as possible.”

Though choosing Moffitt meant an eight-hour round trip from her and Wayne’s south Florida home, that didn’t matter. They were both impressed with the center’s national reputation and that it offered all the services in one location.



“I have a lot to be grateful for,” Anderman says. “I don’t take any of this for granted.”

SHERYL AND WAYNE ANDERMAN



On July 8, 2013, at Moffitt, Anderman had another mammogram, MRI and biopsy. The very next day, she got that fateful call. Ten days later, she and her husband were meeting with the surgeon to discuss the results and treatment options. From that time forward, Anderman stopped consulting with the computer and put her trust into her newly formed Moffitt medical team.

There are several types of breast cancer. Some are invasive and fast-spreading; others are considered quite rare. Anderman was diagnosed with ER-PR positive HER-2 negative ductal carcinoma, caught at a very early stage. With a lumpectomy and radiation treatment, doctors told her the prognosis was good.

Anderman says those earlier fears of being treated like a nameless number in a long line of sick patients were quickly erased by her Moffitt caregivers. Each one, she says, was respectful, compassionate and generous with time and empathy. They included: diagnostic radiologist Alec Chau, M.D., who made sure the Andermans both were aware of all the procedures and possible outcomes; surgeon Christine Laronga, M.D., who also devoted hours of her time to explain, educate and reassure the couple; and radiation oncologist Randy Heysek, M.D., who agreed to put Anderman on a new protocol in fast-track radiation treatment.

“You’ve got to have peace of mind at a time like this, and I had it.”

For her medical oncologist, Anderman put her trust in the hands of Hatem Soliman, M.D., who specializes in breast cancer at Moffitt. His interest in cancer research dates back to his undergraduate studies in genetics. Dr. Soliman also spoke at the appreciation reception for The Don Shula Foundation, where he shared the importance of basic science research as a foundation for developing and testing new treatments for breast and other forms of cancer. In 2013, Dr. Soliman had received a grant from the Shulas to evaluate the use of a breast cancer vaccine to stimulate the immune system in the fight against breast tumors.

“When you’re facing the challenge of a lifetime, you want someone like Dr. Soliman, who is on the front lines of cutting-edge research,” Anderman says. “He’s dealing with these challenges hundreds of times a year. I felt such confidence with him in charge. You’ve got to have peace of mind at a time like this, and I had it.”

There were other factors that eased her journey. Her husband, who was involved in Anderman’s treatment every step of the way, planned fun excursions to museums, restaurants and golf courses in conjunction with their trips to Tampa to help take

their minds off the reason they were coming in the first place. They got a special rate at one of the nearby hotels that partner with Moffitt. And Sheryl says she was seen in a timely manner for all her appointments.

Although she was prepared to handle the consequences of radiation, which can include some burning, fatigue and nausea, Anderman was among the fortunate patients who had very few side effects. She also was able to put her treatment on a fast track, with two radiation sessions daily for seven straight days. By the end of August, she was finished, with instructions to return for checkups every six months.

She’s amazed how quickly she was able to resume her normal life. She and her husband are avid travelers and have visited both Paris and Palm Springs in the last year. They’re planning a trip to London and a river cruise in Germany this summer.

Although surgery and radiation treatment are behind her, Anderman knows her cancer story is far from over. She will have to take maintenance medication for five to 10 years. Because it’s an estrogen inhibitor, it affects her bones and leaves her with arthritic-like symptoms. She has revamped her diet, eating organic foods, avoiding anything with hormones and taking homeopathic anti-inflammatory supplements.

Her experience at Moffitt taught her that compassion and medical care do not have to be exclusive of each other. She learned that the treatment of cancer is a marathon, not a sprint, and that Moffitt will “pace this race with you, passing the baton from hand to hand in a coordinated effort.”

She is grateful that she got this second chance. She wants to see where life takes her son, 25, a technician in a New York physical therapy clinic, and she wants to grow old with her husband. And she has every intention of continuing to enjoy the companionship of Nikki, her beloved Manchester terrier who provided such comfort to her in that scary summer of 2013.

Visit MOFFITT.ORG/MOMENTUM to read this story online and view a video in which Sheryl shares why breast cancer research is essential.



Chemist Shoulders Additional Role: RESEARCH ADVOCATE

by Michelle Bearden

For someone who hated chemistry in high school, Marilena Tauro, Ph.D., surprised a lot of people — including herself — when she eventually fell in love with the subject during her university years.

“Who would have guessed?” says Dr. Tauro, 29, with a laugh. “Maybe it’s because I love a challenge. But once I realized you could always combine existing matter to make something new, I began to appreciate the power of chemical knowledge and application. Here was an opportunity to do something practical and to do something that would help others.”

Dr. Tauro, born and raised in Italy, earned her Ph.D. in pharmaceutical chemistry at the University of Bari in March 2013. Among her accomplishments: developing a number of molecules based on novel strategies to improve their selectivity for bone metastases.

It’s important work. Cancer metastases are the primary causes of death for multiple myeloma, breast and prostate cancer patients. Metastatic cancers induce extensive bone destruction by manipulating normal bone physiology, which causes a great deal of pain to patients and can lead to bone fracture. Ultimately, this greatly impacts the patient’s quality of life.

Despite medical advances, Dr. Tauro says, the treatments available remain limited and geared toward pain management rather than actually curing the lesions.

Her intense focus on making a difference led Dr. Tauro to leave her comfort zone and family behind in Italy and come to Tampa in September 2013 to work as a postdoctoral fellow in the Lynch Lab at Moffitt Cancer Center, led by Conor Lynch, Ph.D. Here she would get the opportunity of a lifetime to hone her skills under the tutelage of the respected researcher.

An admitted workaholic, Dr. Tauro doesn’t have much time to be homesick. Her current project is based on understanding the factors through which metastatic breast cancer cells interact

with normal cells of the bone. She has given herself a lofty goal: to develop new therapies to prevent bone metastases.

“Given the clinical significance of breast cancer and its mortality, I felt this would be the best area in which to focus my combined chemistry and biology efforts,” she says.

In a field traditionally dominated by men, Dr. Tauro has her own personal science heroine: the late Rita Levi-Montalcini, an Italian developmental neurobiologist who was a co-winner of the 1986 Nobel Prize in Physiology or Medicine with colleague Stanley Cohen for their discovery of nerve growth factor. That accomplishment serves as a reminder that gender is no factor in achieving notable advances in the world of science.

But the outgoing Dr. Tauro would not be content isolated in a lab and spending all of her time peering under a microscope. That desire to make a difference and help others once again takes her out of her comfort zone and into a more public position. She serves on Moffitt’s Government Relations Task Force, and in July, she became chair of the Moffitt Postdoc Association, a group that unites Dr. Tauro’s peers on campus to work toward similar goals, offer each other support, resolve concerns and give them more visibility outside the confines of the lab.

And Dr. Tauro’s role as chair gives her an outlet to advocate for one of her strongest passions: the importance of research funding. Because without the money to support the work, “there is no pursuing your dream and accomplishing your goals.” She, like many postdocs, devotes a significant amount of time to writing grant proposals in order to finance her own research.

And it’s becoming more and more competitive. According to the National Institutes of Health (NIH), budget cuts in 2013 meant that the agency awarded 640 fewer research grants. What does all this mean?

“It discourages talented men and women from pursuing careers in science. It drives people to other countries where they are more willing to invest in science,” Dr. Tauro says. “And it’s driving early-stage investigators right out of the field. What we lose by not giving enough funding is hard to measure immediately, but the long-term ramifications are substantial.”



MARILENA TAURO, PH.D.

“When it becomes personal — like having a family member survive a cancer because of a new discovery — then people can grasp the significance.”

In September 2014, Dr. Tauro traveled to Washington, D.C., on behalf of Moffitt to take part in the Rally for Medical Research organized by the American Association for Cancer Research, a one-day blitz on Capitol Hill by advocates of research funding. She was part of a broad coalition of groups representing the medical research community that met with members of Congress, urging them to make funding for the NIH a national priority.

For Dr. Tauro, still new to this country and how the political process works, it was a fascinating experience. She got a range of responses from one-on-one meetings with Florida representatives, such as Bill Nelson, Kathy Castor and Marco Rubio. In the limited time she got with her audience, Dr. Tauro kept her message on point and summed up why research funding is so critical.

“Because we’re working on giving hope to patients,” she says. “When it becomes personal — like having a family member survive a cancer because of a new discovery — then people can grasp the significance.”

With financial support, “the possibilities are endless” on the impact researchers can make, from eradicating cancer to slowing down the ravages of Alzheimer’s disease. 🍷

“Be an advocate for science.”

Realistic Postdoc Uses Proteomics TO ACHIEVE BASE HITS

by Michelle Bearden

With 221,000 new cases of lung cancer diagnosed every year, Matthew Smith, Ph.D., knows the urgency in finding a cure for the disease. But with his science background, he is also a pragmatic realist.

So he uses an analogy from one of his favorite sports.

“We’re swinging for solid base hits,” says Dr. Smith, a postdoctoral fellow in the lab of Eric Haura, M.D., who directs the Lung Cancer Research Center of Excellence at Moffitt. “You can’t count on a home run. In other words, to think we will find a pill that will magically cure every cancer is unrealistic.”

That doesn’t stop him from trying. Part of his time is spent in Dr. Haura’s laboratory, which uses proteomic technologies to better understand how lung cancer evades treatment and to identify novel treatment therapies. Dr. Smith’s current project specifically uses a new technique called “proximity ligation assay” to identify whether specific cell survival pathways are activated or “turned on.”

That kind of work may not spark lively conversation at a dinner party, but it’s necessary, especially to those who have a family member or friend affected by this disease. So when he’s not working on grants to pay for some of his work, Dr. Smith devotes his energies to Moffitt’s Government Relations Task Force, a



Photography: Cliff McBride

nonprofit group composed of postdoctoral fellows that strives to promote advocacy for biomedical research funding.

The goal: to initiate and maintain liaisons with federal and state representatives to demonstrate the importance of research to the public health, economy and scientific progress of this country. The fellows have given tours of their labs to influential lawmakers and made visits to Tallahassee to call on legislators.

Dr. Smith says he never expected to be taking on a role like that. But “there’s a lot of misunderstanding” about how projects are funded, so he and his fellow task force members are focused on bridging the gap to help their cause.

“The reception and support we’ve gotten was an unexpected surprise,” Dr. Smith, 36, acknowledges. “We know the importance of funding research because we see it on a daily basis. Convincing others, especially those who have the power to make funding possible, has to take priority in order for us to accomplish what we need to do.”

Some of the urgency was triggered by the federal budget sequester cuts in 2013, which came on the heels of a decade of stagnant funding. During that period, the National Institutes of Health claims it lost nearly 25 percent of its purchasing power to inflation. “You can’t always predict when a breakthrough will come,” Dr. Smith says.

“If you slow down or stop research, you can pretty much predict there won’t be any breakthroughs.”

Despite the fiscal challenges in his work as a researcher — Dr. Smith says he spends a “fair amount of time” seeking grant money — he knows he made the right career choice. But it wasn’t his first one. When he graduated top of his class at Palmetto High School in 1996, he figured he would go to medical school and become a doctor.

“You never think about becoming a researcher at that age,” he says. “There’s no one in high school pushing you in that direction.”

He got his degree in biological sciences at Florida State University, where he also met his future wife, Susan. Then he veered off the medical career path and got his master’s degree in public health at the University of South Florida, specializing in tropical and communicable diseases. After five years working in a public



MATTHEW SMITH, PH.D.

“We know the importance of funding research because we see it on a daily basis.”

health lab, he began his doctorate, this time concentrating on gene regulation and immune cells.

“It was an indirect route,” Dr. Smith says of landing at Moffitt as a postdoctoral fellow in cancer research. “I’ve never regretted following this path. It’s not the life I thought I would have, but it’s where I found my passion.”

It’s a very busy life. He and Susan, who now works as an administrator for a large Type 1 diabetes research study at the Pediatric Epidemiology Center at the University of South Florida College of Public Health, have two children, ages 3 and 1. When they’re not juggling careers and parenthood, they’re in the backyard of their Lutz home, where they maintain a worm pit for composting and a seasonal garden of beans and vegetables.

“Anything that’s easy to grow,” he says. “We’ll save the challenging stuff for down the road.”

For now, he has another important task at hand: persuading the powers that be to grow research money. If he gets discouraged, he only needs to think of Francis Crick, one of his scientific heroes.

Crick, an English molecular biologist, biophysicist and neuroscientist, was a co-discoverer of the structure of the DNA molecule. Along with two other peers, he also was a joint winner of the 1962 Nobel Prize for Physiology or Medicine for “discoveries concerning the molecular structure of nucleic acids and its significance for information transfer in living material.”

Back when Crick launched his research, Dr. Smith says, “so little was known. There was a vast, immense landscape of discoveries not yet made.” Now his work is the foundation of what is being taught in high school science classes.

“What he accomplished in his lifetime shows how much there is to learn and why research was and will continue to be so important,” Dr. Smith says. 🍷

“We’re swinging for solid base hits.”

Moffitt *and* FORMA Therapeutics TEAM UP

by Randolph Fillmore

SYNERGISTIC ALLIANCE FORMS PRECISION MEDICINE APPROACH TO CANCER DRUG DEVELOPMENT



EDUARDO M. SOTOMAYOR, M.D.,
AND EDWARD SETO, PH.D.

Photography: Cliff McBride

You could call it a “dream team” because since Moffitt and FORMA Therapeutics penned an alliance in September, their combined winning efforts against several varieties of cancers have moved onto the “fast track.”

Like all dream teams, this one has synergy — a momentum that occurs when partners working together create a force that is greater than the strengths of the individual members.

Actually, this partnership is a case of synergy times two. **SYNERGY PART ONE:** Moffitt’s researchers and physicians are interested in treating and curing cancer. Scientists at FORMA Therapeutics, in Watertown, Mass., are interested in developing new drugs to treat cancer. **SYNERGY PART TWO:** Moffitt’s Ralph R. Kaul Endowed Chair scientist and molecular biologist, Edward Seto, Ph.D., provides decades of basic science knowledge and expertise, while Moffitt’s physician-scientist and Susan and John Sykes Endowed Chair in Hematologic Malignancies, Eduardo M. Sotomayor, M.D., provides the team with medical oncology and translational expertise.

“Dr. Sotomayor and I work together extremely well and have a set of complementary expertise,” Dr. Seto says with a smile. “Yes. Working together, we have synergy.”

A decade ago, Dr. Sotomayor’s Moffitt research group was examining how the information in immune cells can be used to make them better at recognizing tumor cells. At the same time, Dr. Seto was beginning to unravel how cancer cells may be influenced by histone deacetylases, or HDACs, pronounced “H-dacs,” a family of proteins composed of 18 known proteins. HDACs play an important role in gene regulation and cell processes, including cell growth, proliferation and repair.

Moffitt and FORMA Therapeutics began exploring their common interests and synergistic potential in late 2013. Groups from both organizations paid visits to each other through the spring and summer of 2014 before penning the agreement on September 23, 2014.

“We found common ground, and we joined our efforts,” says Dr. Sotomayor. “Moffitt’s Office of Technology Management and Commercialization (OTMC), which helps facilitate, launch and



grow faculty startup companies that license Moffitt technologies, was instrumental in leading the business development efforts by driving the partnership opportunity from its concept to a formal, contractual relationship. The OTMC members did a great job.”

HERE’S HOW THE SYNERGISTIC RELATIONSHIP BETWEEN MOFFITT AND FORMA THERAPEUTICS WORKS: FORMA creates new compounds. Moffitt scientists test those new compounds in their laboratories, validating their “molecular signatures” that are the basis for a precision medicine approach to cancer drug development. FORMA makes the compounds into new drugs, and Moffitt matches the drugs to the right patients by conducting clinical trials.

“The focus of our research is to obtain a complete understanding of the functions, mechanisms of action, and regulation of HDACs,” explains Dr. Seto. “Our lab discovered that HDACs regulate important biological processes. These discoveries can be translated into new drugs to treat patients with HDAC-relevant cancers, and that’s why our new partnership with FORMA Therapeutics is so important.”

The discovery of drugs that inhibit some HDAC functions by interrupting the function of the proteins and inhibiting tumor cell growth is an important step toward helping to cure the kinds of cancers related to HDAC activity, such as Hodgkin and non-Hodgkin lymphomas, multiple myeloma, chronic

“Dr. Sotomayor and I work together extremely well and have a set of complementary expertise,” Dr. Seto says with a smile. “Yes. Working together, we have synergy.”

and acute leukemias, melanoma, breast cancer and other solid malignancies.

“It was important to FORMA that we could take their drugs from preclinical trials to clinical trials,” Dr. Sotomayor says. “We expect that clinical trials with the new drugs that inhibit various HDACs will start in 2017.”

HOW DRs. SETO AND SOTOMAYOR EACH DEVELOPED THE EXPERTISE THAT CULMINATED IN THE MOFFITT SIDE OF THE PARTNERSHIP WITH FORMA MIGHT BE WORTHY OF A TV MINISERIES.

While a graduate student at the University of California San Francisco, Dr. Seto became fascinated with viruses and the role they play in cancers. He found inspiration for his career after taking a class with two professors — J. Michael Bishop and Harold E. Varmus — who shared the 1989 Nobel Prize in Physiology or Medicine for their discovery of the role viruses play in cancer.

“It was a very exciting time,” recalls Dr. Seto. “I became interested in gene expression, how genes turn on and turn off, and how oncogenes and anti-oncogenes play a role in cancer.”

He has been at Moffitt since 1996 and was named Moffitt’s “Scientist of the Year” in 2003 in recognition of his work in molecular biology and in particular for his pioneering work in the study of the molecular mechanisms by which HDAC inhibitors work against cancer cells.

As a 7-year-old boy in Lima, Peru, Dr. Sotomayor was admitted to the hospital with an infection. The infection was cured, but his interest in medicine and becoming a doctor, the first in his family, grew out of that experience. After completing medical school at Federico Villarreal National University in Lima, he came to the U.S. in the early 1990s and pursued postdoctoral studies at the University of Miami, where he gained an interest in cancer immunology. He then studied cancer immunology in greater depth during another postdoctoral experience at Johns Hopkins University.

“People told me not to pursue a career in immunology as applied to cancer. They told me that it was a field without a future,” recalls Dr. Sotomayor. “That did not discourage me; I saw it as a challenge. Nothing makes me want to do something that interests me more than someone telling me that it can’t be done!”

Not only did he eagerly pursue an area of science he thought had great promise for treating cancer, but it was his expertise in immunology as a potential cancer treatment that brought him to Moffitt in 1999. Now he is on the cutting edge of the convergence of two fields — epigenetics, the study of changes in gene expression that are not based in changes in DNA sequence, combined with immunology, the art and science of “tweaking” or ramping up the immune system to fight disease. The new field is called “immuno-epigenetics.” The promise is that when new and better ways are found to use the body’s immune system to fight the disease, conventional chemotherapy will play an increasingly smaller role in treating many kinds of cancers.

“The goals of this partnership are to combine our resources and expertise not only in HDACs but also in other molecular targets for which FORMA scientists are developing new drugs,” says Dr. Sotomayor. “It is a win-win partnership. But more importantly, when we can bring new treatments to patients, they are the ultimate winners.”

“It is a win-win partnership. But more importantly, when we can bring new treatments to patients, they are the ultimate winners.”



One Dose of HOPE

by Mindy Adams

“It was just a regularly scheduled appointment,” she said. “You go in thinking that everything’s fine.”

ANN CLAUSSEN
SURVIVOR

Photography: Cliff McBride

“I was in my office all by myself,” she said. “My family doctor said ‘breast cancer.’ I was thinking he had to have the wrong number. After everything I’d just been through.”

ANN CLAUSSEN WAS SITTING WITH A FEW OF HER BOARD MEMBERS FROM CENTRAL FLORIDA HEALTH CARE AND THEIR CONSULTANT, WORKING ON A SUCCESSION PLAN FOR THEIR CURRENT CEO’S RETIREMENT.

And that’s when she blurted it out. “I’d love to have that job,” she said.

That’s all she needed to say. The board voted unanimously to give her the job (as long as she promised to still bring her famous homemade desserts to their monthly meetings). So, at 52, Claussen switched careers. She left her job with State Farm after 27 years and, after serving for five years as a volunteer on the board, she became the chief executive officer of Central Florida Health Care in January 2014.

It was a huge professional shift, but for Claussen, it was a homecoming to the health care field.

“I went to nursing school at Polk Community College, I got a degree in health education from the University of South Florida, and I worked at Winter Haven Hospital as a utilization management coordinator for a little while,” she said. “I wanted to be helping people — people who need care and haven’t had the means for health insurance.”

Maybe it’s her background as a superintendent in State Farm’s Life and Health Underwriting department. Or the instinct she’s cultivated through nearly two decades of motherhood. Claussen has a sweet intention, a quiet focus, this understated determination that just gets it done. With nine nonprofit medical and dental clinics in three counties under her watch, there is definitely a lot to be done.

But just as Claussen began building a new legacy for Central Florida Health Care, her personal life began crumbling behind the scenes.

Near the same time she made the decision to transition into the CEO role, her dad was diagnosed with lung cancer.

“He went through 10 difficult weeks,” Claussen said. “He was on the chemotherapy pill; he got weak and fell, so he was in the hospital for two weeks. Then he transitioned to rehab and never made it out.”

Her father passed away on October 26, 2013.

Then her stepmom, whom Claussen has called “mom” since she was a child, started struggling with simple questions. She’d

ask: How was your day? How are the kids? A few minutes later, she’d ask the same thing.

“I just knew,” Claussen said, “that something wasn’t right.”

So, just weeks after her dad passed, Claussen was driving her stepmom to a local appointment for testing. Two suspicious spots in her brain led them to Moffitt. Doctors discovered cancer in her abdominal area, cancer that had spread to her brain, and there wasn’t anything they could do.

Claussen’s stepmom passed away on March 3, 2014.

In the middle of this whirlwind of grief, Claussen had her annual mammogram appointment “right on schedule.”

“It was just a regularly scheduled appointment,” she said. “You go in thinking that everything’s fine.”

Until she got a letter describing a dense area they’d spotted in her breast. She had to go back for an ultrasound.

“I had no symptoms at all. None,” Claussen said. “My first thought wasn’t worry. I just thought, ‘I’m so busy! I don’t have time to go in again.’”

She did go back, though, and a radiologist didn’t like what he saw, so he ordered a biopsy.

The results came three days later. Claussen was at work when the phone rang.

“I was in my office all by myself,” she said. “My family doctor said ‘breast cancer.’ I was thinking he had to have the wrong number. After everything I’d just been through.”

She sat there for two hours, alone, and cried.

“Then I thought: This is not the way to handle this,” she said. “I have to put my big girl pants on.”

When Claussen told her family the news, she reassured everyone that she was going to be OK.

“I didn’t allow anybody to cry,” Claussen said. “No pity parties. I didn’t want anyone to feel sorry for me, and I didn’t want anyone to get frantic. I just said: ‘We can deal with this.’”

And she did.

Claussen knew she wanted to talk to someone, to hear, candid and clear, more about her kind of cancer and her prognosis.



She spoke with a local surgeon who explained the cancer. He settled her down. Claussen went back to her work clinic and discussed it with her clinic physicians, who recommended her to Moffitt. She scheduled an appointment, and less than a week later, she was walking in. That’s when she met Susan Hoover, M.D., her breast surgeon at Moffitt.

“When you find out you have cancer, you want answers quickly,” Claussen said. “I just loved Dr. Susan Hoover. She talked to me about all of the options. That’s when she told me about a new procedure that’s been done.”

Intraoperative radiation therapy (IORT) became an option for early-stage breast cancer patients in 2011. During this procedure, patients receive their radiation therapy during surgery, while they are still asleep. A lower-energy radiation is administered directly into the lumpectomy cavity (instead of through the skin, like more traditional therapy), so doctors can target the affected area with precision (without irritating the skin). It’s a one-time, one-dose treatment.

“[Dr. Hoover] said I might be a candidate,” Claussen said. “It sounded like a dream. What if I could get everything done in the same day?”

Claussen agreed to try IORT, but there were no guarantees. Dr. Hoover explained that radiation oncologist Roberto Diaz, M.D., P.h.D., would be in the operating room alongside her on June 3, 2014, to assist with the radiation portion of the procedure.

After the surgery, Claussen woke up to her husband’s face. “They did it,” he said.

“It was such a blessing to hear that,” Claussen said. “I didn’t need more radiation.”

If she had not had the IORT procedure, Claussen would have had radiation treatments five days a week for about a month and a half. Instead, she was able to get back to life right away. She was back to work two days after surgery. She made it to her family’s summer retreat in Michigan for the Fourth of July. (She wasn’t allowed to swim so soon after surgery, which was a good excuse to not have to ride on the back of a Jet Ski!) She was back to spin class and 10-mile weekend walks. She was back to opening up a new clinic and renovating another. 🏠

AFTER ONE DOSE OF HOPE, ANN CLAUSSEN WAS BACK TO BEING THE CAREGIVER INSTEAD OF THE PATIENT.

Moffitt “Angels”

Supportive Care Medicine Helps South Florida Woman Win Fight Of Her Life.

by Michelle Bearden



“They are angels. The people who work there, they are making miracles every day. I am one of them.”

PREMATIE JEBODH
SURVIVOR

Photography: Cliff McBride

ANN GUASTELLA
ARNP

PREMATIE JEBODH NEVER FELT MORE SCARED THAN WHEN SHE WAS DIAGNOSED WITH BREAST CANCER.

The Boynton Beach, Fla., woman had no insurance. She and her husband, Ricky, both natives of Trinidad, lived with their son, who helped support his parents. Jebodh had no idea how to navigate the complicated American health care system. Surviving a fast-growing, aggressive stage 3 cancer meant she didn't have the luxury of time.

She had a mastectomy and 24 lymph nodes removed at a south Florida hospital but needed specialized follow-up treatment. Where to turn?

A devout woman of faith, she says she found her salvation five hours away at Moffitt Cancer Center.

“Someone suggested I call. I did it without much hope,” she admits. “Tampa was far away. Why would they want to take care of me?”

With a mission to contribute to the prevention and cure of cancer for all, Moffitt opened its doors to Jebodh and provided essential cancer care. Doctors and nurses researched and delivered the recommended chemotherapy and radiation. To manage the cancer with the best treatments available, the Moffitt oncology team also referred her to the Supportive Care Medicine Department. The approach of the specialized team of health care professionals at Moffitt is whole-person care. While oncology clinicians focus on controlling the cancer, the Supportive Care Medicine providers address the physical, emotional and spiritual challenges that accompany the cancer diagnosis and treatments. Jebodh became the focus of Moffitt professionals dedicated to her well-being.

Social workers helped her with financial aid and arranging nearby hotel rooms for overnight stays when Ricky drove her up for treatment sessions. A palliative specialist prescribed the best medications to control the pain. A psychologist talked her through her depression; a chaplain gave her spiritual solace.

Without them, Jebodh believes she never could have survived the rigors of cancer. They gave her peace of mind and the guidance she sorely needed to survive the toughest fight of her life. She is still waging the battle, but not alone.

Simply put, Jebodh says tearfully, “They are angels. The people



who work there, they are making miracles every day. I am one of them.”

Ann Guastella, ARNP, is one of those angels.

For three years, she has worked as an advanced registered nurse practitioner in the department of Supportive Care Medicine. Before coming to Moffitt, the Valrico woman spent two decades working in hospice programs.

Guastella says she has always been drawn to the care of the whole person, not just the disease.

“You can never lose sight that this is a human being, not a statistic or number.”

Given her longtime work in hospice, she knows myriad challenges can be draining on both the patient and the family coping with a medical crisis. Treatment alone can be overwhelming, as well as other issues that must be considered: emotional, social and spiritual.

It is at this critical juncture where Guastella feels she is most needed.

“A serious illness can be so isolating,” she says. “Without a support system, even more so. In cases where there is no family, we become that support system.”

Invariably, the first question a person asks when given a diagnosis for a serious disease is “What are my treatment options?” Once

that is discussed and explored, Guastella says the rush of other questions begins. How will this impact my family? How can I pay for this? What if I can't handle the pain? How can I handle everyday life while I go through treatment? If I die, where am I going?

Those questions are typically out of the realm of the health professional treating the patient. Not so in the Supportive Care Medicine Program. Being part of an interdisciplinary team that addresses those concerns is the most satisfying part of Guastella's work.

"That's why I went into this profession in the first place," she says. "I want to make a difference in improving the quality of the patient's life and help ease that journey, whether it's at the beginning or the end."

That compassion is also evident in her personal life. When she and her husband aren't doting on their two Siberian Huskies, she's volunteering with her Krewe of Pair O' Dice, which works with Good Samaritan Mission, the Animal Coalition of Tampa and low-income schools.

"When we treat the whole person, we alleviate pain and other symptoms that compromise well-being..."

Team members like Guastella make Diane Portman, M.D., proud.

As leader of the Supportive Care Medicine Department, Dr. Portman says patients who have a serious illness not only suffer from the disease itself but also from a variety of physical, social, emotional and spiritual challenges that together cause unnecessary misery.

"When we treat the whole person, we alleviate pain and other symptoms that compromise well-being, and also reduce the patient's and family's stressors," she notes. In turn, that can enhance the patient's ability to pursue treatments that may lessen the disease burden and even improve overall longevity.

And she has yet another reason to be proud of the program that combines the three sectors of palliative, behavioral and integrative medicine. Last May, the program achieved Joint Commission advanced certification — the only separate department joint commission accreditation at Moffitt.

Jebodh and her husband came to the United States 14 years ago, looking for a better life. She worked occasionally cleaning houses; he worked in a service station.

Their three children, now grown, live and work here. But money was always tight. Jebodh dreamed of returning to visit her homeland and to see her kin again. She would shut her eyes and



smell the ocean, feel the island breezes and hear the calypso music. One day, she promised herself.

Then in April 2013, that dream skidded to a halt. Breast cancer sent her life spiraling in another direction. Now any hopes of going home had to be shelved, replaced by a far more urgent goal: surviving the disease.

She says making that call to Moffitt is why she's alive today. Fourteen chemotherapy treatments and six weeks of radiation, under the direction of medical oncologist Loretta Loftus, M.D., gave her hope that she could beat this disease. Her social worker, Amy Burke, kept her spirits up. The Supportive Care Medicine Program experts helped her combat her pain, depression and spiritual concerns. And just when she thought she was winning, Jebodh was dealt another blow last May.

The cancer had spread to her lungs. In the fall, she began yet another regimen at Moffitt to continue the battle. With the support of her Oncology and Supportive Care Medicine teams, she is still fighting.

She doesn't dwell on what she's been through. Instead, Jebodh counts her blessings. And she says she has plenty.

In December, in a trip funded by extended family, she and Ricky went home to Trinidad for two weeks. Though she didn't have the energy to do much traveling or celebrating, Jebodh got enough hugs from loved ones to last a lifetime. Her dream, at last, fulfilled.

She says her Moffitt angels made it happen.

"We have a saying. God couldn't be here, so he put angels all around us," Jebodh says. "I know it's true. They have lifted me up and given me hope. I do not feel alone anymore. They are right here with me." 🙏

MEETING of the MINDS

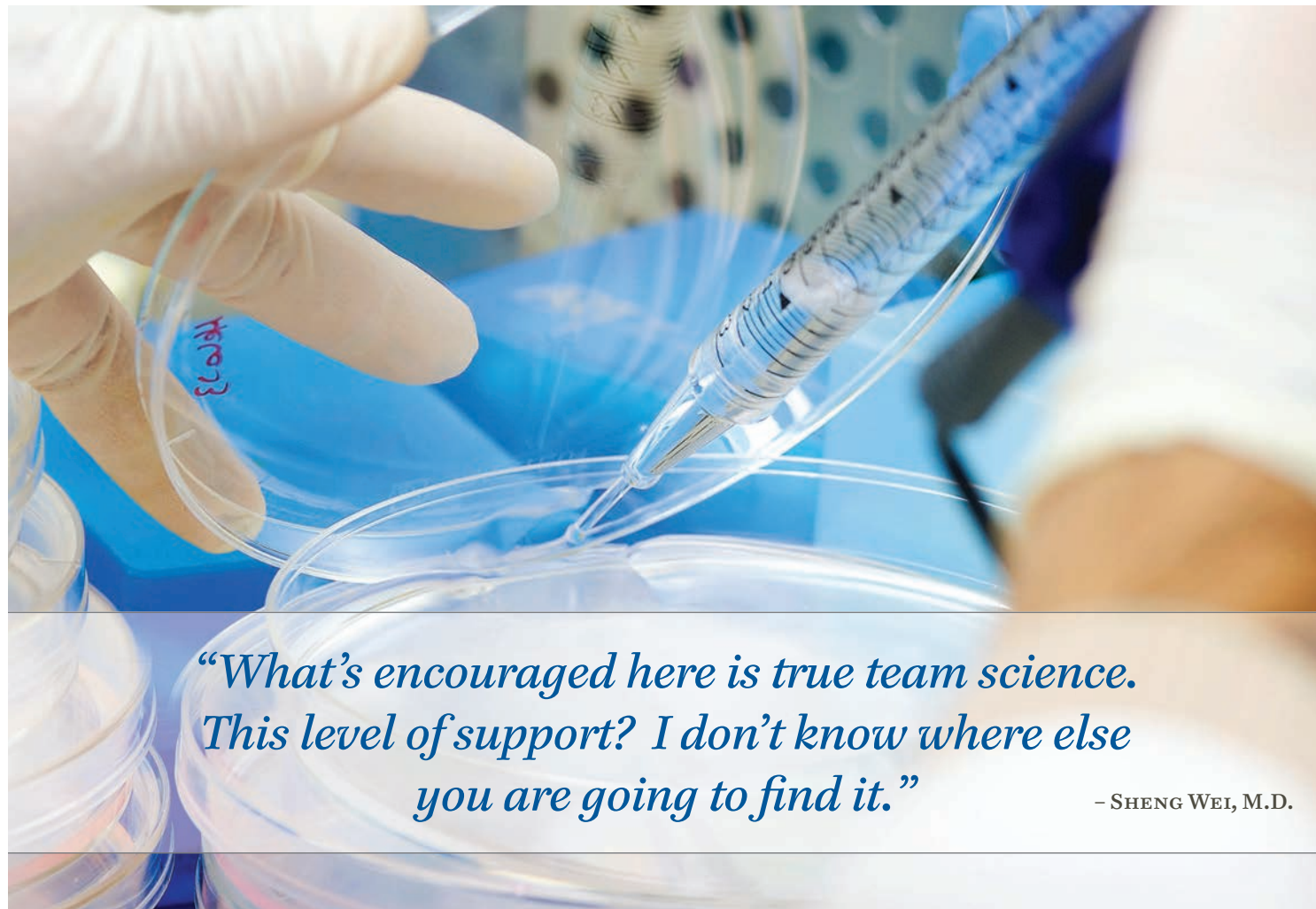
by George Fuller



SHENG WEI, M.D.,
AND ALAN F. LIST, M.D.

CONVERGENCE OF
Immunology and Hematology
Yields Novel Therapy.

Photography: Cliff McBride



“What’s encouraged here is true team science. This level of support? I don’t know where else you are going to find it.”

— SHENG WEI, M.D.

SOME SAY TWO HEADS ARE BETTER THAN ONE. AND THEY MAY BE RIGHT. THE COLLABORATIVE EFFORTS OF TWO MOFFITT SCIENTISTS IN PARTICULAR WOULD SEEM TO BEAR THIS OUT.

Alan F. List, M.D., Moffitt president and CEO, and Sheng Wei, M.D., senior member of Moffitt’s Immunology Department, head up a team that developed something others had not been able to do. It’s a novel therapy to treat myelodysplastic syndromes (MDS, a group of diseases that affect the bone marrow and blood).

“As a team, we just click,” muses Dr. List. “Dr. Wei and I complement each other in ways that are hard to put into words. I tend to focus on what the medical community calls the translational aspects of MDS, while he focuses on the role of innate immunity.”

Dr. Wei expands on a key point: “Although we come from different worlds, our worlds eventually converge at the tumor microenvironment. And we’ve been successfully converging for a number of years now.”

Their collaboration was established long before the current work — co-authoring numerous research papers, sharing grants and conducting clinical trials to study immune involvement in MDS. These endeavors set the stage for a very extraordinary alliance.

Moffitt and Celgene Corporation, in collaboration themselves, have entered into a licensing agreement that gives Celgene the exclusive rights to develop the novel, investigational MDS therapy.

This is a critically important maneuver in large part because the innovative biologic agent, developed by Drs. List and Wei, could improve patient response and outcomes for MDS. The therapy also has potential applications for autoimmune diseases, inflammation, diabetes and enhancement of anti-cancer immune responses.

Why would physician-scientists at Moffitt want to join forces and share their novel ideas with a pharmaceutical company?

The partnership ensures that Moffitt’s basic research can be translated to the patient bedside, where it will have the greatest impact. “Only biotech and pharmaceutical companies have the tools, knowledge and vast resource infrastructure needed to bring nascent agents such as these into the clinic,” says Dr. List. “Among the many companies interested in this project, Celgene was the best fit because of their strong commitment to research, biological expertise and history of developing therapies for blood cancers such as MDS.”

If collaboration is the watchword in medicine, it has a big exclamation point behind it at Moffitt. It’s a governing principle. It permeates everything.

“There is a constant flow of ideas between us,” Dr. List notes. “If that were not the case, well, I don’t think we would be where we are now.”

“Perfect for us” is how Dr. Wei describes the supportive atmosphere at Moffitt. “What’s encouraged here is true team science. This level of support? I don’t know where else you are going to find it.”

Dr. List finishes his thought: “The support found at Moffitt allows us and others to work toward common goals: for example, bringing novel treatments to diseases like MDS that have so few options available, then taking research to the next level by partnering with forward-thinking companies such as Celgene who can, as in our case, optimize a novel biological agent, implement high throughput screening of potential therapeutic analogues and get the best agent into the hands of people who need them as quickly as possible.”

These kinds of collaborative efforts certainly are advancing science and cures at Moffitt. And Moffitt’s Office of Technology Management and Commercialization (OTMC) supports the development of novel products emerging from team science initiatives. As a technology transfer office, the OTMC protects Moffitt’s discoveries and inventions and then licenses the products that might result from these discoveries to either industry partners or to a biotech startup for further development.

The physician-scientists say their therapy emerged from the combination of several eureka moments.

“While a long and arduous process, it was filled with many key discoveries on how MDS develops that can have ramifications to many cancers,” says Dr. Wei. “That in itself gives us a great sense of pride in our science and its potential to be translated into future treatments for this disease and others.”

“There is a constant flow of ideas between us,” Dr. List notes. “If that were not the case, well, I don’t think we would be where we are now.”

More than 50,000 people are diagnosed with MDS in the United States each year. Although the blood cancer can affect people of any age, the majority are older than 60. With the aging of the American baby-boomer population, the overall disease burden is increasing at a rapid rate. The cause of MDS is unknown, but exposure to certain industrial chemicals or radiation can increase the risk of developing the disease. Currently, few approved options are available for patients with this disease. “But all that is about to change,” says Dr. List. 🍷



MDS: THE BACKSTORY

In the past, investigators focused primarily on the malignant cells themselves rather than what actually was driving development of myelodysplastic syndromes (MDS).

MDS is highly associated with inflammation and aging. Drs. Alan List and Sheng Wei led a research team that found that inflammatory cells in the bone marrow cause the blood-producing stem cells to become malignant and less effective in producing blood cells. This is mediated by soluble inflammatory proteins that are increased in the bone marrow of MDS patients.

They developed a novel agent that neutralizes one of the key inflammatory proteins and a chemical compound that can inhibit cell signaling in response to the molecule. The goal of both agents is to extinguish stem-cell-damaging inflammation and thereby restore the bone marrow capacity to produce healthy blood cells.

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 to advance one step further in fighting this disease.

MISSION

To contribute to the prevention and cure of cancer

VISION

To transform cancer care through service, science and partnership

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WE INVITE YOUR PARTICIPATION

Your opinion is important to us, and we invite you to complete a brief survey. Your responses will help us determine how future issues of this magazine can best meet your needs and interests. Visit MOFFITT.org/Momentum and click on the SURVEY link.

H. Lee Moffitt Cancer Center & Research Institute, an NCI Comprehensive Cancer Center - Tampa, FL

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NOTABLE

REVOLUTIONARY NEW TREATMENTS FOR MELANOMA. Moffitt researchers led clinical trials that helped fast-track the FDA approval of the first immunotherapy for patients with metastatic melanoma. Keytruda (pembrolizumab) works by blocking a cellular pathway known as PD-1, which restricts the body's immune system from attacking melanoma cells. It is the sixth new melanoma drug to be approved by the FDA since 2011.

NEW MCKINLEY CAMPUS TO OPEN IN FALL 2015. Moffitt's main campus at the University of South Florida is at full capacity. A new \$88.8 million, six-story, 207,000-square-foot building on North McKinley Drive is scheduled to open in fall 2015. The facility will provide expedited surgical services for outpatient cases, expanded clinics, radiology services and other support services

BEST PLACE TO WORK. Moffitt has been named a "Best Place to Work" by many publications, including *Working Mother Magazine*, *Computerworld*, *Florida Trend* and *Tampa Bay Times*.

Visit MOFFITT.org to find out about our upcoming events

WHEN YOU DONATE TO CANCER RESEARCH your gift will go directly to helping researchers and scientists develop the medicines and protocols that will advance cancer treatments and help cure patients. Simply put, your generosity will help save lives. Every gift, no matter the size, makes a difference. Now is the time to get involved and help make a difference. Visit MOFFITT.org/Giving to find out more.



12902 Magnolia Drive, Tampa, FL 33612

TO CONTRIBUTE TO THE PREVENTION AND CURE OF CANCER

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