Kosj Yamoah, MD, PhD, is a man who’s familiar with having a foot in two different worlds.

Some days as a radiation oncologist in Moffitt Cancer Center’s clinics, he says, something just seems to click. He might be seeing prostate cancer patients or maybe those with other types of genitourinary cancers, “and suddenly I realize I’m seeing a consistent problem. I’m thinking - we can do better here! It begins to form the basis of a hypothesis that can be tested,” explains the scientist in Dr. Yamoah. “Those are ‘aha’ moments!”

Except, he notes with a chuckle, for the manager of his Moffitt research laboratory, who knows what’s coming. “He’ll say - ‘When Kosj gets that look, that’s crazy dangerous, because his mind begins to go wild!’” More than once, Dr. Yamoah’s wild thoughts reduced to a one-page draft have become studies that his office and lab staff hadn’t exactly been expecting. “And they’ll say - do you know how much work you just unleashed on us?”

Hard work is how he’s gotten this far in just 37 years; a man with dual careers and dual citizenship on two continents.

A PASSION TO HELP OTHERS.

Long before he became a physician, a researcher and the father of a child with cancer, Kosj Yamoah was a child of Ghana, a country roughly the size of the state of Michigan on the Gulf of Guinea in western Africa. Ghana has its own dichotomies – traffic and all the trappings of the western world in its capitol Accra, with mud huts 20 miles away. Growing up in Accra’s suburbs, Kosj was driven by two passions: a desire to help others and a need to learn. He was the youngest of four, teaching himself to
“I wanted to work with people globally to look at one common problem from both the advanced world and the developing world.”

read by borrowing his siblings’ textbooks. He made national news after acing Ghana’s high school entrance exam – at age seven. When young Kosj was allowed to join his older siblings at boarding school, he quickly became its de facto health officer, accompanying older students to hospital as a liaison with their physicians. “As much as I enjoyed studying and making my own discoveries,” he reflects, “I felt most alive when I was helping people recover.”

By age 19, he’d completed Ghana’s two-year medical school track and applied for graduate studies at Mount Sinai in New York City. Here he discovered the path to serve both his passions, as a physician and a researcher, through its medical scientist training program. Within three months, his work in the research lab led to groundbreaking publications. No wonder his application for permanent U.S. residency under the national interest waiver was granted. Before he’d completed his residency and radiation oncology fellowship, he’d been awarded two competitive research grants.

And through his mentors, he’d identified the perfect intersection for his research and clinical interests: prostate cancer and its inordinate incidence and mortality among black men.

According to the National Cancer Institute (NCI), African-American men have the highest rate of aggressive prostate cancer and related deaths of any ethnic group in the United States. And in sub-Saharan Africa, prostate cancer is the second leading cause of cancer deaths among men.

PROSTATE CANCER: A PROBLEM IN BOTH WORLDS

“Prostate cancer is a problem among black men in Ghana and throughout Africa – just as it is in the United States,” observes Dr. Yamoah. “It made sense to focus my efforts on this disease. I wanted to work with people globally to look at one common problem from both the advanced world and the developing world.”

As an assistant member of Moffitt’s Cancer Epidemiology Program, Dr. Yamoah’s research focuses on the biologic factors behind prostate cancer disparities. Global scientific collaborations can help researchers tease out the details of underlying biology by comparing subsets of patients from far-flung corners of the world. Whatever holds true despite differences in diet, environment, socioeconomic status or other confounding factors is often meaningful. It can also be helpful to look at subpopulations of patients whose genetic makeup is less of a melting pot than of those in the U.S., where self-identified African Americans may unknowingly have a multi-ethnic heritage.

Among Dr. Yamoah’s more than 30 peer-reviewed publications, one study identified a subset of genes known as biomarkers which define an aggressive type of prostate cancer more common in black men of African origin, whether they are now “from Jamaica, the Bahamas, Nigeria, Senegal, Ghana, the U.S., you name it,” he says. He hopes that further study of these genomic biomarkers will lead to development of better treatments, much like identification of BRCA gene mutations in women led to more personalized treatment plans for breast cancer.

COLLABORATING TO REDUCE DISPARITIES

With his strong ties to Ghana, Dr. Yamoah was tapped by a mentor to become a co-investigator with an NCI-funded consortium called MADCaP (Men of African Descent and Carcinoma of the Prostate), which brings together researchers from the U.S., U.K., Africa and the Caribbean. It’s work he’s continued and expanded upon at Moffitt. Dr. Yamoah’s goal with this group is to develop a biorepository – a retrospective data bank of information from prostate cancer patients in 18 participating countries to aid in creating protocols for use globally. He’s also part of a subgroup called Bio-MADCaP, focused on eventually collecting biospecimens for collective study of the biology of prostate cancer.

Funding for such ambitious initiatives can be challenging, with tightening competition for government and philanthropic grants. That’s one reason why Dr. Yamoah has also become involved in the George Edgecomb Society at Moffitt. This unique opportunity seeks to partner with the community in generating support for research aimed at reducing racial disparities in cancer incidence, mortality and survivorship.

It’s exactly the type of research that Dr. Yamoah has undertaken, both in the U.S. and in Ghana. He continues collaborative work between Moffitt and the University of Ghana Medical Center in search of ways to predict aggressive prostate cancer in men of African origin. The two institutions are working to develop the Ghanaian’s prostate cancer program into a center of excellence with Moffitt oversight. Some of Dr. Yamoah’s Moffitt colleagues are also discussing a collaborative project involving breast cancer among younger women, another increasing problem in Ghana.

These collaborations extend to programs like M-POWER, the Moffitt Program for Outreach Wellness Education and Resources, to address cultural and behavioral barriers to cancer screening and treatment. “You’d be surprised how much similarity there is in the attitudes on both continents,” he adds with a laugh. “Patients say, ‘I don’t want to get checked!’”
WORKING TOGETHER TO LIVE HEALTHY

The key, says Dr. Yamoah, is dispelling the notion that physicians are the bearers of bad news. “We need to change that mindset – and establish that we can show you how to live healthy. That change can only come from people like us who can say – I am at risk as much as you are. And we want to work together to prevent this.”

Dr. Yamoah’s connection to his patients has deepened through personal experience. His son Zion was just four years old when he succumbed to brain cancer in July of 2016. Zion’s cancer battle began just as Dr. Yamoah joined the faculty at Moffitt. He spent many days and nights in the hospital with his son on “the other side” of the consultation table, this time as the father of a patient rather than physician.

While Zion bravely dealt with chemo, radiation and surgery “like a champion,” his father continued researching and seeing patients at Moffitt whenever possible. Not all of Dr. Yamoah’s patients knew about Zion’s battle. It’s a story he shares selectively, when he thinks it will help the patient. Those that knew, he says, often couldn’t wrap their minds around how he was able to function and be present for their care.

“I still have moments where it’s very difficult when I hear patients talking about their grief, because it reminds me of my own pain,” he reflects. “But I have realized that sometimes sharing that moment of connectivity with their problems and what I’ve been through can give them the strength to move forward.”

Dr. Yamoah keeps his smiling boy’s photos throughout his office, along with pictures of his daughter Zoe-Elle. His wife, Jaymi, keeps alive the memories of the baby boy who “sang and danced in her womb” through the non-profit she founded, called Out of Zion. It provides a creative program including music, dance and the arts – things that Zion so loved – for children with medical and special needs at no cost to the caregivers. Pediatric cancer patients and their families were the first to benefit from an Out of Zion program at the Children’s Cancer Center in Tampa. More kids in the Tampa area and in New York City had the opportunity to “Shine Like a Superhero” at Out of Zion summer programs; celebrations that serve as a balm for the Yamoahs first year without their precious young boy.

“We miss him,” Dr. Yamoah says simply, “And I don’t know what the whole experience means to my journey, my story - why couldn’t I, an oncologist, have changed things? We may never be able to understand.”

“What I do know is that I have to keep on moving forward with him in my heart, and that’s where I’m at.”

For that part of the journey, Dr. Yamoah draws strength from his faith, family and the work that remains his passion. After all, there is still so much to learn – and so many more to help.

Dr. Kosj Yamoah is a Moffitt radiation oncologist whose clinical focus is genitourinary malignancies. His collaborative work focuses at reducing cancer disparities across the globe.