

Duke School of Medicine

# VOICES

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# Voices

## Letter From the Editors

This has been an absolutely amazing semester for DukeMed Voices. Thank you to everyone who contributed and submitted to this issue. We could not have done it without your support and hard work. This is especially true of the associate editors, whose edits and hardwork make this publication possible. What an amazing team!

In this issue, we have a wide range of literary narratives and artistic poems that balance the life outside of medicine and the very real realities within. In “*Our Love was Made for Skype Screens*,” James Tian (pg. 4) and his girlfriend, Amy Trey, capture the longings of long-distance relationships. Their poem is placed in stark contrast to Rayan Kaakati’s (pg. 4-5) unflinching description of a patient’s decisions in the face of breast cancer, reminding us of the reasons behind our sacrifices as medical professionals. Whether we are surgeons deciding deftly where to cut (pg. 6), or internists skillfully managing patients with metastatic cancer (pg. 14-15), we have an obligation to our patients as medical personnel. It is hard as medical students to sometimes stand on the sidelines while medicine is practiced, but before long, we too will be care providers with full responsibility for our own patients. Whether those we care for are children (pg. 8-9) or our own grandmother (pg. 7), our responsibility to our patients is unwaveringly clear.

As we leave you to explore the rest of the issue, we want to thank you again for your support, and we hope you enjoy this issue as much as we did working to put it together. And as always, if you have any interest in writing for or joining Voices, please let us know at [dukemedvoices@gmail.com](mailto:dukemedvoices@gmail.com).

Your co-Editors-in-Chiefs,  
Rui Dai, MD/PhD student  
Anna Brown, MS4

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# Our love was made for Skype screens

Amy Trey & James Tian, MS1

We fall asleep while illuminated by an alien glow and wake with the memories of a drowsy conversation.

I can see her and I can hear her I can laugh at her jokes and she can laugh at mine. But the experience isn't the same without holding her This laptop isn't the right touchscreen

Of airplanes, and fast cars speeding toward each other. Always waiting for that moment of contact of "3, 2, 1" Even fast cars are not fast enough to bring us together.

Two objects close together can form a spark Enough potential built up to cross a small distance

James Tian is an MS1 who prefers Skype over Google Hangouts.

## Breast Cancer From

Rayan Kaakati, MS1

One out of eight women will have invasive breast cancer during their lives: a frightening game of Russian roulette. Breast cancer is statistically fatal for about one in thirty-six women [1], but even for those considered survivors, the disease challenges them in ways never imagined. The risk of cancer in and of itself threatens the inner peace of many women who don't even end up developing the disease. My closest experience with breast cancer has been with my Aunt Hala, who has lived in Lebanon since her birth in 1962. Her dice landed on cancer in 2006 when Hala was diagnosed with breast cancer. To Lebanese, cancer is referred to as "The malicious disease" or, reminiscent of Lord Voldemort, "the-not-to-be-named disease." People refuse to even mention the word cancer ("sarattan" in Arabic), and many who get it are kept in the dark about their affliction. They pass away unaware, convinced their lung cancer is merely a bad cold or their stomach cancer is actually just an ulcer. However, in Lebanon, this silence is not the case with breast cancer; everyone is aware that once you feel a lump, you end up losing your entire breast (as in Hala's case) or if you're "lucky," then you end up having only a portion of your breast removed. And if the odds aren't in your favor, you may end up losing your life all together.

Hala, the youngest among five sisters, initially ignored her lump. Like many women, the thought of having sarattan sent her into complete denial. By the time she casually mentioned it to one of her sisters a few weeks after discovering what felt

like a "hard lump" in her right breast, hoping the older sister would also be nonchalant about it, the disease was at stage three. The denial phase of cancer is common for most women, as studies show that more than one third of women who feel a lump in their breast postpone going to the doctor for at least three months [2]. This could be due to multiple reasons, such as the cost of cancer treatment, fear of a mastectomy, the terror of chemotherapy, or the thought of death.

Soon after her first doctor's visit, Hala went from denial to acceptance; anger never came. She put up a strong front that helped all of us cope with this dreaded intruder into the family. Aisha, the eldest of the sisters, had a hard time accepting that Hala had cancer and kept hoping it would be benign. Another aunt insisted that she should not accept the surgeon's recommendation of "carving her up" and kept referring to the surgeon as the "butcher." Others unknowingly opted for a worse approach—not talking about the issue at all—giving Hala the feeling that the Angel of Death had parked his chariot outside her door. I could only imagine how my other aunts felt as they watched Hala battle cancer, as the doctor informed them during the six chemotherapy and twenty-five radiation sessions that the risk of them developing breast cancer doubles automatically since they now have a close blood relative—their baby sister—with the disease.

It is stressful enough for a person to be diagnosed with stage three breast cancer, but what is overlooked

## Hala's Perspective

is the barrage of issues that force one to look at an illness as only one of many issues. Women and men with cancer are forced to alleviate the pain and worries of others as they worry not only about you, but also about themselves, because you having cancer makes the Russian roulette game even more dangerous for them. Hala's main worries came from informing relatives overseas, receiving constant phone calls and visits from well-wishers, and pondering over the "what ifs." The "what ifs" invaded Hala's thoughts day and night: what if I lose both of my breasts, or the cancer is metastatic and spreads to other parts of my body, or what if the cancer I have is not responsive to chemotherapy, or worse, what if I have prolonged illness and my body wilts away?

Women who get the disease worry about the hardship of treatment, the dreaded five-year wait before one can be blessed with the "in remission" certificate, and the lifelong uncertainty about whether the disease will resurrect itself. One year after Hala's mastectomy, the doctors reassessed her progress and recommended an oophorectomy, which is the removal of the ovaries in order to reduce the amount of steroid hormones, progesterone and estrogen, circulating in the system [3]. Hala's doctor explained to her that estrogen was to tumor cells what fertilizer is to weeds. My family greatly appreciated the doctor's thoughtful metaphors and careful explanations that helped them paint a picture of what was going on, while keeping them from the dark. As a consequence of the oophorectomy, she developed

osteoporosis, which is the weakening and dissolving of the bones caused by a lack of estrogen. Currently, Hala still has osteoporosis and is taking medication once a month to strengthen her bones, in addition to the calcium supplement she takes every day. Hala and her sisters were grateful to her doctor for taking the time to inform them about the disease. Mammograms have become an annual right of passage in my family since Hala's ordeal.

In Hala's words, "by understanding my disease and available treatment options, I voluntarily accepted the poisonous medications the doctor prescribed me." Hala described her medications as "poisonous" after experiencing the bouts of vomiting, lack of appetite, weakness, and severe nausea every time she would take them (this is not to mention the burning feeling, after each one of the twenty-five radiation sessions Hala attended, that would only go away once she rubbed a pound of ointment on her breast. In fact, every time Hala came near the Rezk Hospital in Beirut for her chemotherapy session, she would automatically show "anticipatory nausea and vomiting." This phenomenon occurs at the sight, smell, and sound of the treatment center that reminds patients of previous chemotherapy sessions [4]. Once the stomach-twisting feeling of nausea crept over her, not even the prescribed anti-nausea medication could stop it. There came a time when Hala felt so defeated during the chemotherapy sessions that she wondered whether it was easier to succumb to the disease than to withstand the punishment of the medications. Her six

chemotherapy sessions, twenty-one days apart, suffocated her, and in the words of Hala: "The doctors will strangle you and the disease to the brink of death—hoping the disease will surrender first".

The breast of a woman signifies the bounty of a crop, the generosity of a rain cloud over a thirsty land yearning to be quenched. When cancer targets that organ, an afflicted woman cannot help but feel an onslaught upon her being. Nature, for some unknown reason, has thrown a poison into her wellspring, and modern medicine's "cure," to date, is as cruel as the disease itself.

While many studies have characterized those affected by breast cancer, based on age, drinks per day, smoking, race, breast-feeding, etc, a cure or a vaccination for the disease has not been discovered yet. Women are still waiting for a panacea, where gene therapy will eventually replace chemotherapy, radiation, and the surgical carving up of patients. Nine years after her breast and ovaries were taken from her, Hala still stands strong as a powerful symbol. By enduring the physical, mental, and spiritual tribulations of cancer, Hala has been a positive impact on her family and community as she openly discusses her experience battling cancer and is an avid promoter and participant of regular breast cancer screening—and most importantly—she is a survivor.

Rayan Kaakati is an MS1 originally from California who spent 8 wonderful years growing up in the Middle East (between Lebanon and Qatar). She had the opportunity to observe the role of medicine in different cultures.

# Surgeon's Special

## S. Tammy Hsu, MS2

There is a goal in mind  
I know what I am here to do  
The tools are laid out on the table  
Arranged conveniently by you

I've scrubbed my hands with soap  
My field is sterile and clean  
I've washed what I'm cutting into  
My eyesight sharp, my mind keen

I make the first incision  
The knife slides through softly  
Does that cause pain?  
I continue on objectively

Technique is a crucial skill  
When and how to hold tension  
How to cut and not kill  
When to burn without verbal mention

Efficiency is the air we breathe  
Stitch, needle back, tie, cut, stitch  
Anticipation  
can help things go without a hitch

Artfulness is important too  
How to make it all look nice and pretty  
How to arrange it best for you  
Traceless, no sign of my tools or me

Because no one wants to imagine my fingers  
Wrapped around, glistening  
With fluid  
In surgery or in cooking

S. Tammy Hsu is an MS2 who was on her surgery rotation when she wrote this; she has zero cannibalistic tendencies and just wanted to note the similarities between cooking and surgery (prompted by a surgeon kindly inviting her over for Thanksgiving dinner).

# Massacre at Sandy Hook

## Peter Wood, MS1

Again the earth runs red with blood—the type that stains—the blood of innocents. It's an old story frightfully re-imagined: the helpless slain by an offender whom they did nothing to offend—too innocent to have grasped the depravity which extinguished life; too young to have considered a future they will never know.

Bleeding hearts cry out for comfort where none exists, just as troubled minds cry out for explanations and motives that remain elusive. For who among us can truly comprehend the inner life of another man?

I hear the toll of bells and, recalling the wisdom of Donne, know better than to send for whom they toll. O, that our world could permit such atrocities! That children whose flames burn so brightly could be so callously extinguished, while those poor souls who birthed them are left behind to suffer wounds more painful than those that claim life—wounds which will never heal, but will throb and smart until those on whom they've been inflicted breathe their last and, mutilated from within, are laid to eternal rest beside the bodies of their darling little ones.

And what of the perpetrator? Is not he my brother, also? Readily we reach for stones with these soiled hands of ours, convinced of our innocence, and yet—did not we play some part in creating a world in which demons are free to roam? If only someone would answer our cries for help—wretched creatures that we are.

Peter Wood is an MS1 who enjoys reading and writing in his spare time.

# The Ponds\*

## Jerry Lee, MS2

The pungency of old age heavies the air as we rummage through Grandmother's wardrobe. In the room, pigtails like seedling sprouts – my two-year-old niece – scurry past knees to catch a glimpse of the elderly matriarch, her face marred by time, and my father, handed a red silk tangzhuang with gold floral embroidery, steadies Grandmother into the chair and begins to dress her. Step by step we wheel her down our stairs toward the coterie of awaiting family. It is January 2015, and we are celebrating Grandmother's 100th birthday.

I was in grade school when she first began living with us. "A temporary stay," my mother always insisted, but the passing of time did little to convince anyone. When Grandmother became a widow, her first words were, "I want to die at home" – and home, not the country she lived these past 40 years, was with her only son, my father. In my youth, Grandmother and I led largely mutually exclusive lives. However, as I came of age, questions of origins, culture, and family history naturally surfaced alongside my search for identity and assimilation. In my house, we had no heirlooms, no sepia-toned photographs or hundred-year-old genealogies, and with my parents occupied by a restaurant venture that would feed their three sons for the next 20 years, I sought the expertise of our family historian.

For almost ten years, she spun tales of the Monkey King, Moon rabbit, and my namesake, Yu the Great Flood-Conqueror. For almost ten years, she was our veritable treasure of story and mystery.

We lift her toward the edge of the seat, and motion for her to look at Father. "Blow out the candle," he tells her, and the candle flickers violently as the light expires. Grandmother is served ice cream cake, her favorite, and I watch as she slowly and deliberately brings steel to her lips and swallows. No tremor, no hesitation... a functional basal ganglia – my mind interrupts, and I am at once disquieted but unsurprised by my instinctual reduction of person to biology. I think back to Grandmother's stories, perhaps one of her family as persecuted Christians, hiding in the rafters while neighbors redirected the Boxer rebels; or the one about how she met Grandfather during the Chinese Civil War – also a Nationalist who absconded to Taiwan, never to see his family again; or maybe the story of my parents, who came from nothing, feared nothing, and traversed a great ocean without skills, education, or friends, in pursuit of a dream for their children. The stories of three generations of immigrants... what does medicine teach us about this? Where were these stories hidden in her biology?

I've come to believe that although time is the great equalizer, medicine always seems to resist. There is no cure for age. Nor should there be: time is change, movement, urgency. One year ago, we closed our family restaurant; this year, we will be moving from our house of twenty-five years to the dry, forlorn California interior. And now, as I look at Grandma, my training tells me that she will die, and she will die soon. Her soul will go to nothingness, her history dissipating like the last

breath she draws. Her body, already deteriorating. Muscle and sinew will unravel; flesh will atrophy; and her senility, evident as the contours of her face, will slowly crumble her spirit from dust to dust. In her dotage, she wastes away in an unstoppable decay, alongside the vestiges of my past.

And still.

Still, what I want in my life is to remember – to cast aside the weight of facts and make biology subservient to the mystery. Each person is more than a constellation of disease, living forever through the imprint she leaves. As for me, I want to believe that stories inhabit bodies more than illnesses; that life, not death, is what gives meaning to life; and that when we die we add a little bit of ourselves to the fabric of this difficult world. I want to believe that we are not enclosed by Time, or reduced by Biology, but we are now swimming through the boundless waters of the deepest mystery. I want to believe that imperfections are nothing, that love is everything – that we, my Grandmother and I, are more than the sum of each innumerable cell expanding and dimming.

And I do.

\*Inspired by "The Ponds," a poem by Mary Oliver.

Jerry Lee is an MS2 who enjoys making fun of kale.

# Hunting for Caterpillars

Ashley Adams, MS1

When I came to introduce myself you weren't interested in learning my name. You were in the process of clearing out a hole in the prickly bush: "Do you want to help me hunt for caterpillars?" Sure, I said, nervous as hell. While I was so excited to "work with children with mental illness and gain first hand experience in the field of mental health!" I had no clue what I was doing. We spent the next half hour on our hands and knees on opposite sides of the bush, with you popping your head out every minute or so to yell "find any?!" and lay eyes on me to make sure I hadn't left you digging in the dirt by yourself. The soundtrack of our search consisted of the crying, yelling, and punching of your peers from which you were probably trying to escape, so I was thankful that you, a calm and easy-to-please little guy, invited me into your quiet world.

But I learned quickly—later that night, in fact— that your world was considered to be "too quiet". We needed to increase your social skills, they said, and to teach you to verbally express your feelings instead of resorting to physical aggression when you were angry or confused or, frankly, fed up with the cards you were dealt in life.

That night, and countless nights afterwards, after finishing dinner and hygiene and eating a snack during the pre-bedtime movie, you'd ask for more popcorn, to which the answer had to be no. If it had been up to me, bud, you could have had all the popcorn you wanted. But the same government that couldn't quite find a way to keep you safe during

your seven years of life also regulated the food you received while in our care. Our hands, we were told by our superiors, were tied. You did this after every single meal, and distinctly had a preoccupation with food that seemed to confirm the reported years of abuse and neglect we read about in your file. While we reasoned with you to "use your words" and the slightly firmer "you know this isn't how you get the things you'd like," you'd be on the ground silently trying to push past yet another group of adults who took your control away with all of the force and energy your small frame could muster.

In the beginning, we knew once you'd dissociated we were headed towards using the physical restraint techniques we were so reluctant to use. We'd try so many different tactics to get you to come back, but the only thing that worked was literally grounding you back into reality. Two of us would grab your arms, as firmly as possible to limit the chance of you fighting your way into dislocating your shoulder but lightly enough for our own peace of mind. We'd move you into the somewhat soundproof seclusion room and lay you down in the supine position when a third person would come and hold your legs.

You would yell: "OK I'M DONE I PROMISE" which we couldn't be foolish enough to accept. We forced ourselves to wait in thick silence while you calmed yourself down with deep breaths. You'd beg us to let you go—"YOU'RE BREAKING MY LEGS"—, breaking my heart in the process. After about ten minutes I'd

start taking theatrically deep breaths, realizing that you'd likely forgotten that was what had worked in the past. Almost immediately you'd catch on to my breathing pattern and eventually be able to name your favorite superheroes and agree to a plan about how I would help you get to bed and fall asleep that night. I would shakily lift my hands off your thin wrists and stare at the red marks I had left wondering what trauma I'd undoubtedly caused in the name of guiding you through the trauma you've faced in the past.

The restraint accomplished what it was said to do. Every night your voice would eventually come back. But so would the pit in my stomach.

Your bedtime was supposed to be 8pm, but if you were in bed by nine on any given night it was considered a success. This all too familiar scene of crisis was just as predictably followed by you asking me to read you the "shark book". The familiarity of those same thirty-seven shark facts we learned together every night worked like a charm, but your easy ability to sleep at night didn't keep me from losing some of my own. You'd fall asleep happy to have been read to. I'd lay awake questioning how a bedtime story could possibly outweigh the effects of institutionalization.

The unfortunate catch-22 of childhood trauma became very clear, very quickly. Didn't the way we denied you your favorite snacks in excess resemble the way you were denied before? And we held you to the highest of expectations to help you learn to appropriately express yourself, when, hell, there are days when I think

throwing yogurt cups against the wall might be therapeutic. Yet you shocked me each subsequent afternoon, when despite a night like that, you'd still ask if I'd fish off the playset with our makeshift tree branch poles and grass lines, or search for frogs or caterpillars or ninja-turtle giant slugs. And when I got confused about the ninja-turtle slugs (...were they turtles or were they slugs?), it amazed me that you harbored no residual distrust that would lead you to fire me as your wing-woman.

The questions remain unanswered, but in such a controlled and safe environment, the catch-22 played in our favor. We helped you clean up the yogurt/Legos/mud. We took you to get a haircut and eventually came around to that Mohawk cut you couldn't live without. And, over time, when you consistently avoided the need for physical re-

straints by demonstrating some kick-ass (!) restraint of your own, we showered you with the praise you deserved. Before long it was time for you to go home with your grandma, which you knew to mean one thing, for sure: a goodbye party.

I came in late to the party to find the place in crisis. As I start to clean up the leftover party treats, I watched you come out of your room and seize the opportunity of the surrounding mayhem to take a chocolate-chip cookie out of the bag. In one of the countless moments when I understood my mother just a bit more, I gave you "the look", told you I had come specifically to celebrate all the progress you'd made, and knew you could make the right decision. The words had barely left my mouth when you popped half of the cookie into your mouth and chomped down. My turn for speech-

lessness: I could do nothing but look at you, quick to call this behavior evidence of regression, swift to once again denounce the efficacy of any of our efforts.

And yet, just like a caterpillar on a branch of that prickly bush outside, if I hadn't been looking closely enough I would have missed the smile that crept up at the corners of your crumby lips and the apologetic turn of your brows as you placed the half-eaten cookie right into the palm of my hand.

Sure, as I found out while cleaning up the rest of the party, the cookies may have been dreadfully stale. But a cookie is a cookie, no matter how unpalatable; progress is progress, no matter how slight.

Ashley Adams is an MS1 with an interest in mental health who prefers studying to the soundtrack of Pixar movies.



PHOTO CREDIT: Jانيا Arcia-Ramos, MS1

# The Meaning of Illness

Peter Wood, MS1

## Part I:

Michael was all squared away for his trip to the Florida Keys; the bags were packed, the flights were booked, and the motorcycle had been rented. It was February of 2005—a typical cold New England winter. As he fell asleep that night, he imagined himself fishing off the coast with his friends, a tropical breeze blowing in his hair and the sun shining on his face.

He awoke suddenly in the middle of the night, drenched in sweat and with a screaming pain in his lower back. Eventually the pain subsided, and he managed to fall back asleep. The next day, he felt back to his normal self. There was no sign of any trouble from the night before. That night, however, he awoke just as before, drenched in sweat and with the same sharp back pain. “Maybe it’s a kidney stone,” he thought. He decided he ought to get checked out; he didn’t want the pain to overtake him unexpectedly while he was riding the motorcycle.

Michael climbed into his car and drove to the ER of his local community hospital. After passing through triage, he waited for a time before a physician came in to see him. The doctor asked the usual questions, and Michael told the story just as it had happened. The doctor ran some tests—no kidney stone after all—but the blood work—well, that was a different story. His white count was off the charts. “We’ll need to run some additional tests,” the doctor said.

Within a week, biopsies had been taken of the lymph nodes in his chest. It wasn’t long before the doctors came back with a diagnosis:

mantle cell lymphoma, a subtype of B cell non-Hodgkin lymphoma. Stage IV.

“How can that be?” Michael wondered. Other than those two episodes of drenching night sweats and sharp back pain, he hadn’t had any other symptoms whatsoever. In fact, he’d been feeling perfectly fine.

The doctor ran through the typical treatment regimen for mantle cell lymphoma and explained that it had a success rate of about 50%. As soon as Michael got home, he reached out to some acquaintances of his who had undergone treatment for cancer. He wondered whether there were any alternative approaches to the standard treatment his physician had outlined. Michael devoured pamphlets outlining his disease and spent hours doing research on the Internet. Some friends happened to know the head of the oncology department at Dana Farber. Michael thought it might be worth trying to see him for a second opinion.

It was with the name of this doctor in mind that Michael returned to his community hospital to meet with the oncologist responsible for his care. After running through the final treatment plan and telling Michael what to expect, his oncologist said, “If you want a second opinion, I suggest you speak with Dr. H at Dana Farber.” As it happened, this was the very same Dr. H with whom Michael’s friends had tried to put him in touch. As soon as he heard the name, Michael felt reassured and decided to proceed with the treatment at his community hospital.

For nearly two months, he would drive into the hospital, have some

blood work done, then proceed to the infusion suite for treatment with R-CHOP, a conventional chemotherapeutic agent. Each visit lasted approximately seven-to-eight hours. Initially, the treatment didn’t seem so bad, but after his third round, Michael woke up the following morning to find clumps of hair on his pillow. He shaved his head later that day. Throughout his course of treatment, Michael never suffered from much nausea, but he felt completely exhausted. He also felt mentally slow, as though his brain couldn’t process anything clearly. Michael underwent PET scans prior to and after receiving chemotherapy, and he had blood drawn more times than he wished to count.

When Michael’s cancer went into remission, his doctor wanted to start him on maintenance Rituximab. Michael had done his research on that, too. As before, it was what he called a “50/50 crapshoot.” This time, he went to Dana Farber. The oncologist there also suggested Rituximab. “I’m doing well with the treatment,” Michael thought. “I might as well keep going.”

For another month, Michael went to the hospital on consecutive Fridays for an infusion. He was totally wiped out and did not feel like continuing to take time off from work. Instead, he wound up going back once every six months for the next couple of years. The cancer seemed to be staying in remission, but what was intended to be his last PET scan showed evidence of “questionable” lymph nodes. Michael continued on Rituximab for another year. He received his last treatment in the fall

of 2010. From that point on, Michael went to the hospital once every six months for blood work and an occasional PET scan. Since 2014, he has gone in once a year for a check-up and to have his blood drawn.

Michael was fifty-six when he was first diagnosed with mantle cell lymphoma. He is now sixty-six years old. He is currently in remission.

## Part II:

When Michael first received his diagnosis of stage IV mantle cell lymphoma, he was completely nonplussed. As he explained, he was feeling totally fine until those two episodes of back pain and night sweats in February of 2005. Prior to that, he hadn’t exhibited any other symptoms at all. He found it hard to believe that the disease could have progressed so far without any outward physical manifestation that may have tipped him off. He explained that before being diagnosed, he had not been going to his doctor regularly; he’d been feeling so well that he hadn’t really seen any reason to go. He wondered if his disease could have been picked up earlier if he had kept up with his routine visits.

When receiving chemotherapy, Michael said that he did not experience anywhere near the degree of nausea he was expecting. More than anything, he felt exhausted and worn out. He also experienced what he called “chemo brain,” saying that he “just felt stupid.” Interestingly, Michael explained that it was not until he started to improve that he fully realized the physical toll the cancer and subsequent treatment had taken on him.

Before his diagnosis, Michael was moderately active—ice skating, cross-country skiing, shoveling, hiking, swimming. After treatment,

however, he did not have the energy to engage in physical activity to the same degree. As he remarked, “Back then, I felt like I could bike 20 miles. Then I’d hop in the shower and feel like a million bucks. Since the treatment, I haven’t even been close to recapturing that feeling.” These days, Michael still swims and bikes occasionally, but he is acutely aware of his physical limits.

He also said that he does not read nearly as often as he did before the illness because he does not feel mentally sharp; he feels as though he frequently misses small details when reading. Reflecting on his current state of health, Michael said, “I feel pretty good generally, although at this point in life, I thought I would have had more energy and brain matter than I do. On the other hand, I’m 66 years old now. Even without the illness, I’m not sure how great I’d feel at my age.”

Michael spent much of his career working for General Electric. He was often in the field at construction sites. He had done very well over the years and had a reputation of being a reliable and competent worker, and GE was consequently very accommodating when he came down with his illness. They wanted to keep him with the company, and they provided terrific insurance. There were no issues at all with his taking every Friday off to go to the hospital for chemotherapy. In time, however, Michael’s treatment regimen began to take a physical toll on him. He realized that it would be difficult to drive in the middle of winter to new construction sites where there would be no heat and many stairs to climb. In addition, the work itself was often stressful, and the deadlines were tight.

One day, Michael walked over to

human resources and asked if he could transition into design, which entailed working most of the day in an office at a computer. He also asked if he could drop his commitment from 40 hours to 24 hours per week. His requests were granted without hesitation. At first, Michael felt that he was pretty slow on the uptake in terms of working with the company’s computer software. He wasn’t quite sure to what extent this was merely technological illiteracy on his part versus the effects of mental decline due to chemotherapy. However, he understood all the facets of his work, and with time he became more and more comfortable with the software. He was still turning out a product with which the company was more than satisfied. In 2010, at the age of sixty-one, Michael decided to retire, which he admitted was a bit sooner than he had originally anticipated.

Michael was certainly not the only person impacted by his illness. He explained that his friends essentially fell into two groups. One group was very actively involved. They would call often to see how he was doing. They asked if he needed anything and made it clear that they were willing to do whatever they could to help. By contrast, the other group was completely paralyzed; they simply did not know what to do and were unsure of whether Michael even wanted to talk about his illness. The reaction of this latter group surprised Michael because he felt that, were a friend of his in a similar situation, he would have reached out to see how he was doing...

*Continued at sites.duke.edu/voices*

Peter Wood is an MS-1 who enjoys reading and writing in his spare time

# Re-imagining Education in Nigeria

Temini Ajayi, MPH, MS2

Education shouldn't be something we try to "get through". It should be a lifelong process. This is something that was difficult for me to understand as a high school student in Nigeria. I recall being in musty classrooms, staring at charcoal boards all day, trying not to get distracted by the sounds of creaking ceiling fans in the classroom. We had to write speedily because if you failed to keep up, the teacher would all too quickly wipe off the notes from the chalkboard, and in simple terms, you were screwed. It was never fun, it was hell. I recall thinking that there had to be a more efficient way to learn. I earnestly looked forward to my graduation because it meant I was that much closer to becoming a doctor. It also meant that I was only a few years away from never having to learn again. I was eager to be done with studying forever.

Fortunately or unfortunately, if I was looking to stop learning, medicine could not have been further from my target. The entire premise of medicine is daily, continuous learning. New research is published everyday that could drastically change disease management. New, potentially fatal drug interactions are unearthed with new research publications. More importantly, with each new patient, comes an entire history and opportunity for learning. Each patient is different and it is your job as a physician to know as much about him or her as you are able to in order to provide the highest quality care. If self-driven learning was not already a way of life, such a process could get tiring quickly.

I spent a larger part of my forma-

tive years in Nigeria. For me, transitioning to the US for college was a shock for many reasons. There were stark differences in ethnic culture, but more importantly there were very palpable differences in educational culture. For example, I was used to staying up late into the night, trying to get through pages and pages of boring, god-awful texts with no colors or pictures. I would remind myself that I only had to cram the material, run off to the test to offload it, and I was free from it forever – or at least that was what we were made to believe. I certainly got by with this approach. Some might even argue that I excelled at it; I topped my classes and I felt like a great student. By Nigerian standards, I was a great student. Unfortunately, what I failed to realize is that in the real world, cramming material would never suffice. In the real world, you must learn the information and then you must apply it. Theoretical knowledge is just that: a bunch of facts. The real value in learning is evident in hands-on application of learned facts.

I was made even more aware of this insight during my medical training at Duke. I am currently at the beginning of what would be considered the 3rd year of a traditional US medical school. There is no doubt that it has been challenging, but it is also true that I expected it to be. What I did not expect, however, were the reasons behind the challenge. I thought that the most difficult part of learning for me would be the sheer amount of material. While it is true that we have an unthinkable number of facts to memorize, what I

struggled with more was how to apply these facts to caring for patients. I would love to say that I struggled like every other medical student, but that would only be half true. What would be more accurate is that I did struggle... just in a different way from my classmates. Some students did absolutely fine from the start and maintained stellar grades throughout the year. I was almost convinced they had passed through the medical curriculum in another life. A part of me was envious of these students, but more importantly, I was curious. I wanted to know exactly what it was they did differently and how their process of learning differed from mine. What I learned shocked me. I learned their excellence was rooted in 3 major factors that were promoted by the learning culture at the University (and probably other medical institutions in the United States). These included a hands-on/interactive culture that was adaptable to multiple styles of learning, a fun/interesting approach to learning with every opportunity (including the use of educational cartoons), and most importantly, an emphasis on self-motivated learning.

Perhaps there were ways that we could begin to transfer some of these interesting learning methods back home (and to Africa)? My instincts were that this issue of ineffective modes of learning was not unique to Nigeria. Before now, I was already aware that education was one of the problems I wanted to help solve in the world. However, I now have access to innovative learning tools and pedagogy to effect that change. It will take a while, but what is import-

# (and Africa?)

ant is that I have begun that journey. Myself, along with a group of similarly motivated individuals at Grow With Nigeria are working to provide high quality expository programs to Nigerian high school students. Our goal is simple: we want to demystify careers through exciting hands-on activities that make learning fun and readily applicable. We recently visited Nigeria to conduct a STEM educational program that featured over 61 students, 4 participating high schools and a number of educators, volunteers and contributors. During this experience, students learned to work collaboratively in groups on fun, practical, coursework. They learned to manipulate anatomical specimens, do laparoscopic and gross suturing, and apply learned concepts through case studies. We also showed them how to use technology as a powerful tool in STEM fields by offering short "coding 101" classes. From my perspective, however, the greatest value probably came from the protected time they get to engage in interactive dialogue with graduate students and faculty. Such opportunities have always been absolutely priceless for me. At Grow With Nigeria, we believe that opportunities like these are vital in helping students gain a better understanding of their prospective careers.

The feedback was inspiring. What is clear is that students and teachers alike are open and ready for newer, improved approaches to learning. Education in Nigeria (and Africa) is a difficult issue to tackle, but it is an important one. I hope that one day more individuals can be inspired to translate some of the wonderful op-

portunities they have been privileged to benefit from here in the United States back to their home countries. I believe the time to take on such a critical issue is now. I also believe it is a duty to give back to our communities, and we do not need to wait till we are executives or working professionals to do so. Giving back starts now, in whatever way we can.

Temini Ajayi, MPH is an MS2 who is passionate about education and global health, and hopes to use his medical and public health training as a platform to develop responsive local and international public health initiatives that will inform widespread policy. He is currently a member of the Grow With Nigeria team. To learn more about what we are doing, please visit [www.growwithnigeria.org](http://www.growwithnigeria.org). If you would like to support our vision, or contribute to our cause, please click on the donate button at the top right corner. Thank you in advance!

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# Living and Dying

Vinayak Venkataraman, MS3

His white hair glistened brightly amidst the darkness of the room. The sun had just risen with rays creeping through shuttered blinds, painting stripes along the opposite wall of the wonderfully cramped and plain VA hospital room. He was lying calmly in his bed, awake. When he heard me enter, he looked up and smiled.

In his thick New Jersey accent, he said, “Well, hi there! If I knew you were coming, I’d have baked a pie!” “Sorry to wake you, Mr. G,” I replied as I handed him his hearing aids from the side of the bed. “How was your night?”

“Oh, well, you know,” he started. “The pain is still there but it’s not so bad.”

“Do you think the pain meds are working?”

“Oh yes,” he replied. “It really takes the edge off.”

Mr. G was 92 years old with a known metastatic prostate cancer diagnosed two years prior. He came in with severe lower back pain and urinary retention due to his enlarged prostate. His imaging was thankfully negative for compression of his spinal cord, but revealed a pathologic fracture of his tail-bone. He came onto our medicine team for acute pain management. He was started on an assertive pain control regimen and received palliative radiation, which made him considerably more comfortable.

“You think they’re ever gonna take this out?” he asked, pointing to the Foley catheter tube emerging from underneath his gown. It had been left in because his urethra was entirely obstructed by his prostate.

“I don’t know, sir,” I answered truthfully, “But for now, it’s helping

you clear urine from your bladder. We think it’ll help you feel more comfortable.”

“Oh good, that’s fine.” He replied. “But do you think I can ever get out of here?”

“We’re working on it, sir.” I said, also truthful but with unwarranted optimism.

His story was exceedingly tricky for all of us because he also came in with a diagnosis of dementia. For this reason, his daughter was his health care power of attorney. She took the word “power” to heart. She refused to let her father be present at any family meetings. She refused to discuss any life-prolonging therapies and requested all treatment decisions go through her. When asked why promising life-prolonging therapy was discontinued two years ago, she simply said, “My father would never want to live longer with his dementia.” She insisted his dementia was “severe,” that taking care of him was “impossible,” and that he was “unable to do anything by himself.”

The tricky aspect was that he was none of these things during his hospital stay. He was continuously alert and oriented and had only mild short-term memory loss. He was able to recall events that took place 70 years ago, 3 years ago, and earlier in the day. Prior to being hospitalized, he was living in an assisted living facility with his wife of 70 years. Despite his daughter’s claim, he was aware he had cancer and aware that he was dying.

“What bothers you the most, sir,” I asked.

“You know, doc, the pain of not seeing my wife,” he said, part dejected, part wistful. “It’s worse than the

pain in my back.”

“I know how much you love her, Mr. G,” I replied. “She sounds like such a wonderful person.”

“70 years, doc! That’s how long we’ve been married. And you know what - it seems like it was yesterday.”

We both smiled as I patted him on the shoulder.

“The spark is still there,” he said. He first looked down at his bed sheets and then back up at me. His eyes were not tearful but expressed grave concern. “Do you think we’ll get to live together again?”

I offered encouragement again, but I did not know the answer to this one. It was another tricky situation related to his daughter. From our vantage point, Mr. G was fully capable of living with his wife in assisted living with home hospice care. However, his daughter found this idea heretical and demanded her father live in a skilled nursing facility — away from his wife. Despite our insistence that there was no legitimate medical or physical/occupational therapy rationale for him to require that level of care, she continued to drag her feet.

Though Mr. G was medically cleared, planning for his discharge was an absolute mess and fraught with ethical dilemma. To its credit, the VA hospital and its dedicated staff continued to remain firm in pushing for the patient’s dying wish — to spend his remaining days by his wife’s side. However, given the family dynamic and insistence on an option that did not honor his wishes, Mr. G was stuck in the hospital for the foreseeable future.

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As a medical student, I was an

observer, not an active participant, in those conversations and decisions. But being a medical student with considerably more time than everyone else on the team, I was able to play a role in his care — helping keep his mood up and his body active during his extended stay.

Despite his illness and prognosis, Mr. G was always delightful and pleasant to be around. He may have been 92 on paper, but he could give people half his age a run for their money. He loved to walk, so I would devote a couple hours each day to go for a walk with him. Sometimes, we’d go down to the cafeteria together and share some coffee and conversation. It was during this period that I learned his amazing life story.

Mr. G learned to be resilient from an early age. His father left his mother and him when he was only 11. His father sounded like a truly awful man. He didn’t see his father for 45 years until one day, his father knocked on his door and handed him a lawsuit. He claimed his son owed him money, but “once the judge heard me speak, he threw my dad’s ass out of the courtroom. I mean, can you believe his nerve?!”

Mr. G never went to college, instead working odd jobs and construction to help support his mother. He enrolled in the military and served in World War II. He was a combat engineer in the army and served with General George S. Patton. “People were scared of him, but he was always nice to me. If you did your job right, you kept him happy.”

Mr. G knew I went to Princeton for college – we bonded over being “NJ mosquitoes” as Mr. G put it. He loved telling me his Princeton-related war story. During the invasion of Normandy and subsequent battles, Mr. G was captured briefly by the Germans. The general in charge of

the German contingent was a cocky, but intelligent man.

“Where are you from?” He had asked Mr. G.

“I’m from New Jersey,” Mr. G had replied, in as thick a Jersey accent as he could muster.

To his surprise, the general replied, “Oh, I know New Jersey!”

“You do?”

“Yes, I went to Princeton!”

“Oh wonderful,” Mr. G replied. “I’ve driven by Princeton.”

He never told me how he escaped from German detention, but perhaps it had something to do with the bond established between “NJ mosquitoes.”

Most of the stories Mr. G told me were not about war, but rather about his wife of 70 years. He clearly missed her but did enjoy telling me about her. They met in New Jersey at one of those old-fashioned roller-skating rinks. “I literally swept her off her feet!” By that he meant, he bumped into her and caused her to fall.

He told me how his wife was originally from Germany but had emigrated early in the 20th century. He also proudly told me how his wife worked on the Manhattan project, playing a crucial role in developing the atomic bomb. He was mindful of the destruction caused in Hiroshima, but he did maintain, “General Patton told us if we hadn’t dropped that bomb, a million more lives would have been lost in war.”

His stories about his wife and the obvious, radiant energy to their love were captivating and inspiring. But it did give Mr. G good cause to comment on my marital status (i.e. single). He said he knew that doctors are always so busy with their work, but that was no excuse. “You have to be proactive. You can’t let it slip you by because it will.”

I looked forward to my afternoons with Mr. G, whether walking up and down the hospital floor or heading down to the cafeteria for some coffee. He really enjoyed the latter — I’ve never seen someone quite so excited to go to VA hospital cafeteria. But when someone is stuck in his room against his wishes, it’s pretty easy to appreciate the sentiment.

He was always effusive in his appreciation and praise, saying spending time with me was the highlight of his day. I made sure he knew spending time with him was the highlight of mine. He told me about his favorite doctor, Dr. Shocken, up in small town NJ. When Mr. G ran his construction business, he developed a friendship with Dr. Shocken. Despite being a brilliant, compassionate mind, his friend had trouble landing a job because of his Jewish faith. Mr. G was working on constructing a new wing for a community hospital, and he aided Dr. Shocken in getting a job there.

“He was a brilliant man and oh, so, so nice — he was a doctor’s doctor, if you know what I mean,” Mr. G would say. “And you know what, I think you are going to be one too.”

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I loved my few weeks working at the VA because of getting to know patients like Mr. G. His life read like a vibrant novel, and the love he had for his wife was genuine, beautiful, and insurmountable. It was oddly refreshing to meet someone who knew he was dying, accepted it, and knew with immense clarity how he wanted to pass, and with whom by his side...

*Continued at sites.duke.edu/voices*

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