

medicine

at M I C H I G A N

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150 YEARS AND GOING STRONG:
THE U-M MEDICAL SCHOOL
CELEBRATES ITS SESQUICENTENNIAL



Bench
-to-Bench

GENIUS

Two **MacArthur awards** in biological chemistry honor the creativity of two **great scientific minds** at **Michigan**



Breathe

A short story by second-year medical student Christy Ann Petroff

I stand in the darkness, away from the flickering light of the campfire. In front of me the campers and counselors at Camp Sunrise sing noisily about bugs and bats, and all sorts of camping nonsense and wonders. Something small and cold slips inside my hand. So fragile in my own, this hand weighs almost nothing. *I want to take this hand in both of mine, to take this child up in my arms. I want to hold her and keep her warm for all my days and all of her own.* She yanks down on my arm. “C’mon, why aren’t you singing?”

I inhale the cool, night air. Deep inside me, I let its freshness fill my lungs.

Breathe now. Breathe easy.

Breathe life.

This summer here, in this place, it is a different summer than I have felt within me and around me for the past three months. I close my eyes. I make it go away. Far away.

The studying for the Medical College Admission Test. The long nights with blurry eyes from staring too long at biology notes and chemical equations.

The research. The endless hours on my feet, thinking, interpreting, trying to understand.

The sadness. The rest of my life without a boy I loved.

The question. Always the question, could I do more? More reviews, more experiments, more words to stop him from ending his life with his own hand.

Nothing I do will be enough, until I become a *doctor*.

She belts out songs next to me. She sings of spiders and flies, and the “itchy-kitchy-coo,” whatever that means.

Earlier she asked me, “Why did you come to camp? It must have taken you a long time to drive from Michigan to Maryland.”

“I know Dr. Dan,” I say. “I work in his laboratory. I want...”

I want to be a doctor.

She doesn’t let me finish.

“Oh, him,” she says in the mocking way an eight-year-old says things when she wishes she was twelve. Cool. That’s how she wants to act. But I saw the smiles she saved up for her doctor. I watched as she wrapped her skinny arms around him when she arrived at camp.

She doesn't understand what the word 'laboratory' means. She doesn't ask because she doesn't particularly care. Last month marked the eighth year of her life. When Dan diagnosed her with cancer four years ago, her parents didn't expect she would finish kindergarten. She cares about Barbie dolls, and which boys - "eww, disgusting" - will end up in her third grade class this fall. She doesn't need to know how I spent my summer days and many of my nights too, locked deep, four floors below ground, in a room near the hospital. She shouldn't wonder why I spent hours cutting DNA into fragments, mapping the pattern of letters, to find out what is missing in her code. To find out why the doctors made her pretty hair fall out. Down in the laboratory, no windows to see the sunshine, to catch the scent of warm breezes, I spent hours concentrating on my work. I resolved that this summer I would learn as much as I could about the molecular biology and genetics of cancer. I convinced myself that this research experience would improve my chances of acceptance to medical school.

So that someday I could spend my days and nights taking care of kids. Kids like these surrounding me by the fire's bright light. Boys and girls like the ones at Camp Sunrise.

Children who have a disease called cancer.

Children who swim like guppies, and catch fly balls in their soft leather mitts.

Children who stay up for hours together in the darkness, giggling and telling ghost stories.

Children who collect shells scattered by the gently lapping water.

Children who run and play and laugh and cry.

Children who do not just live, but are life.

Children with cancer.

Each summer, the American Cancer Society sponsors a week-long camp for pediatric oncology outpatients. Bright yellow school buses pull up outside a Baltimore clinic where 80 children climb aboard, carrying bulging backpacks and sleeping bags, their stuffed animals tucked under their arms, their medication safely handed to Dan, the head of the medical staff. The bumpy buses take them to a woody camp a few miles outside of the city.

Dan invited me to come along. "Be on my staff," he said to me late one afternoon in Ann Arbor when I grew frustrated with my experiment. He knew I needed to get out of the laboratory for a little while. Too much time spent thinking, studying, reviewing, working on practice exams for the test.

He knew I needed to breathe.



The songs end and the campers file back to their bunks. I walk with the girl back to her cabin. I have to be back in the infirmary soon, to organize the medications for the morning. Then I will go on 'rounds' with Dan. We stop by each cabin to check on each child, joking with the older kids not yet ready to sleep, watching the little ones dream, worn out from days filled with sunshine and friends.

She wants to show me her bunk, she says. "C'mon. Please? Just for a minute?" She likes me; I can tell. When she comes to the infirmary to take her medication morning, noon, and night, she lingers longer than the other campers. She chatters endlessly about school and her puppy. I listen.

I see a picture of her taped to her bunk. She has hair. She looks much younger. I ask casually whether these are friends of hers from school. She gets excited. "Friends since we were two at daycare. That picture is old. See, I have hair. But hey, look at this one . . ." She fishes in her duffel bag, overflowing with T-shirts and shorts and treasures from home. She pulls out a box. Treasures inside. Precious things. A plastic ring. Some coins. A half-eaten candy cane from last Christmas. She pulls out another picture. I recognize the face in the center. I know the smile. "This one my mom took at the beginning of the summer." Four girls in bathing suits. All skinny, all sunburned. One wearing a floppy cloth hat, with a big flower at the front. No wisps of hair sneak out from under the brim. "See, I'm the palest. My mom puts so much sunblock on me; I never get any tan."

You're the one wearing the hat too.

"Cute hat," I tell her.

"That was such a great day. . ."

A peal of laughter sounds from the other side of the cabin. Ten small girls sit laughing, talking about the 'disgusting boys' in the cabin across the dirt path and what sort of prank they should play on their cabin. "Toilet paper, maybe, wrapped round and round their beds?"

"Rubber snakes?"

"Go on," I tell her. "You're missing the plans."

She flashes me a smile.

I slip out of the cabin quietly to meet Dan.

The next afternoon she stops by to ask for a bandage. I cannot see the alleged injury. As I stick the Snoopy Band-Aid on her finger, she inquires innocently, "Do you have to stay here all day?" I knew she didn't need a bandage. I look over at the doctor. He grins at me.

"No . . .," I say slowly, waiting for her to finish my sentence.

"Well, then, let's go."

She grabs my hand and pulls me toward the arts and crafts cabin. "Have you ever done gimp before?" she asks me. "I'm great at it." This child is so fresh sometimes. What in the world could she mean? Gimp? She leads me to a table where the activity director has laid long, thin cords of brightly colored plastic in careful rows upon the table. I've never been to camp before. I don't know about these things, these camp crafts. She looks at the table for a long time, pondering her decision. Finally she chooses her colors, all neon. A bright green, a brilliant yellow, a fiery red, and an electric blue. She clutches the long cords, the colors glowing in her tiny, white hand. "The first part is hard," she tells me. "Getting it started."

I don't know. Her small fingers fumble with the bright plastic. I can't tell what she is doing. She makes a loop with one of the colors and then she tries to tie all of them together at that end. She starts to get frustrated. I lean closer, to try to see what she is doing, to try to help her. She leans over her hands, concentrating on the colors, sitting on the edge of her chair.

"There," she says finally, as she sits back in her chair with a thump, looking pleased with herself. A square-shaped knot binds the cords at one end. She runs the colors between her slender fingers, straightening the plastic, smoothing out the waves. "Okay, now watch." She arranges the cords carefully, one hanging down on each side of the square knot. Then she begins to weave the strings together, folding each colored cord over another, intertwining the colors. The ends fly up as she weaves them. Each time she completes the pattern: left side over to the right, right side over to

the left, weave the top string over the right and under the left, and the bottom one, weave that string under the right and over the left. Then pull the strings. "Pull them tight so that they stay together. Red over yellow and under green. . ." I watch her as she pulls on the cords, tightening the meshwork of colors. "If you don't pull hard on the strings, the gimp will fall apart; it will come all unwoven." Green over blue and under red. "Not knots, see? I weave the colors together. You knot the beginning, but the rest is just a weave." She likes using that word, 'weave.' Her trade.

She looks over at my hands, unmoving. "Why aren't you working on yours? I can start it for you if you'd like? Do you want to do something else?"

I stare at her.

I want to do everything, everything I can. I want to read every article ever written about your particular strain of the disease. I want to search databases, call colleagues, spend nights in the library scanning the latest journals.

I want to be your doctor, yes. . .

I will poke you with all sorts of needles. You won't like that one bit. But I will string a tube through you too, setting up a line so that I don't have to stick quite so much. I will prescribe dozens of medicines for you to take when you go home. Your mother, she will arrange the pills neatly in boxes that have letters on the top corresponding to each day of the week. Then you will know which ones you will swallow on Monday, when you take the pink pill, and when you choke down the large brown one. But I will look for the smallest sizes available, if large pills won't slide down your small neck.

I will look at your charts. I will watch your numbers, and see the counts change. Up and down, up and down like a roller coaster. You will make my heart beat fast, just as when the coaster car screams around a curve.

I will talk to your parents, trying to explain what your sickness means and what I expect your medicine to do. I will warn them that you might be tired, maybe even too tired to be a good girl.

Patience, I will remind them, have patience with her.

I will tell you things about your illness, and what is happening inside your body. I will tell you when you might feel queasy, times when your peanut butter and jelly sandwich might not stay down in your stomach. I will warn you when your bones might start to ache. I will warn you when you will have to come to the hospital for treatment, or to stay.

I will be honest, but I will try, I promise, not to frighten you.

Oh, yes. . .

We will laugh with each other. You will tease me because you are almost as tall as I am. You will ask me about the armadillo pendant around my neck and I will tell you a very special friend gave it to me. You will laugh and say that is a silly thing to have around my neck, and one day, while you lay sleeping on your hospital bed, worn out from the medications, worn out from illness, I will slip an armadillo necklace under your pillow. Your own. And then I will stroke your head, gently, and feel the smooth skin on the top.

I will watch your body rise and fall beneath the sheets as you sleep. I will look at the cards from all of your classmates decorating the walls.

And I won't wonder what you looked like once with hair covering your pale head. Because I think you are beautiful. Right now.

If I know you will leave me someday, it won't hurt so much when you go. I will have done everything I could for you.

"No," I say loosely, "I'd rather watch you. You're good. I'll make one later." She shrugs her shoulders indifferently, but I see the corners of her mouth creeping up as she looks down at her gimp, focusing on it. Trying to look important and very skillful, she studies the colorful chain growing in her hands, carefully, inspecting it for mistakes along the way. And then she goes back to the weaving. The colors fly from her finger. She is lost in her work and I am lost in her and her small hands, her thin frame, her floppy hat.

She stops suddenly. “Are you sure you wouldn’t rather do something else?”

I want to...

I tell her I want to watch.

I just want to watch you.

I think about the research. I think about all the hours I have spent hunched over my textbooks late at night, trying to learn all of the biology and chemistry inside. Books, and index cards, and worn-down pencils. How far it all seems from this child.

I think of my friend, the boy. Guilt, memories, and tears. So far away from her.

I look at the colorful strings lying on the table. I pick four colors. Soft, pale shades of pink and purple and blue and green.

I give her the strings. “Can you start this for me?”

Smiling proudly, she ties the strings together.

Then I begin to weave.

Later, the girl stops by the infirmary. She holds up her masterpiece, her smile stretching across her cheeks. “See this loop on the end? You can put a key ring on it and then you have a keychain.” She holds out the colorful object in her hands. “Here, you take it.”

This girl melts my heart. “No, no,” I protest. “What about your friends, your mother?”

She says, “I want you to have it, Christy.” She places her beautiful chain of glowing colors in my hands. “I’m giving this to you.”

The colors glow.


I start to thank her, to tell her how I will always save her gift.

But, she doesn’t let me finish. “I really have to go, though. I might not get a marshmallow to roast...”

I watch her run down the hill.

Faster and faster, away from me - I wait back up at the infirmary, needing to catch my breath, as you run, run down the hill, toward the other kids, sitting in circles around the fire. You keep living. Keep breathing. Keep running. All I see is the glow of your flashlight. And then it is gone, and I know you have found the others, gathered around the fire.

I hold the gimp keychain in my hands. I pull on the ends.

I breathe the air around me. The life. The living. 



Author’s Note: Christy Ann Petroff’s short story is based on her experiences at Camp Sunrise for children with cancer in Glyndon, Maryland, where she has worked as a volunteer for the past three summers. Petroff is a second-year medical student from Grosse Pointe Woods. She received her bachelor’s degree from the University of Michigan in May, 1997, majoring in English and psychology. She is a recipient of an Alexander S. Vida Memorial Medical Scholarship. The Vida Scholarship was endowed in 1983 by Helen F. Vida of Bradbury, California, and her daughter, Judith E. Vida, M.D., in memory of their husband and father, who earned his undergraduate (AB ’35) and medical degrees (MD ’39) from the University.

The Vida scholarships are awarded to women who have completed the first year of Medical School, who majored in non-science liberal arts areas as undergraduates, who have financial need and who show promise for a medical career. The Vida Fund, through growth and additional gifts, now totals nearly \$900,000. Annual scholarship distributions from the fund are now approximately \$35,000, and will increase over time. Those distributions are currently helping to support the medical studies of several students at Michigan.