Be a Pencil

Alynne MacLean

When I was growing up, I wanted to be a carpenter. Rather than dolls or dresses, I wanted to play with hammers and saws—not exactly every mother's dream for her little girl. By fifth grade, however, I had decided to keep woodworking as a hobby and become a scientist instead.

In 1982, my love of science brought me to Gordon College in Wenham, Massachusetts, to study chemistry. After my sophomore year, I went on a mission trip to Central America.

I had never witnessed such poverty. We rose by five each day and walked to the cocoa fields where we caught up with the Costa Ricans we were staying with. They had been working since four.

We sang the whole way to the fields to be sure the snakes heard us approaching and had time to flee. The intense heat—which did not drop below 97 Fahrenheit even in the evenings—was rivaled only by the humidity. A pair of pants, handwashed in the river, took two days to dry when hung out, because the air could not absorb any more moisture.

The village where we stayed had no electricity or running water. For our showers, we hauled water from the village well and stood in a tub. After stripping down, we could pour cupfuls of water over our heads.

Our host families fed us two meals a day of rice and beans. My host family had chalked a descending dove on the door to their home, next to the words Dios es amor (God is love). In the short time we had together, as we worked side by side and shared meals, I came to love the people I met. I wanted to help them—not just for the summer, but for my life.

But I had no idea how to do that. So

Alynne MacLean is a member of Congregational Covenant Church in North Easton, Massachusetts. For more information contact: Science with a Mission, 602 Massapoag Avenue Sharon, Massachusetts, 02067, alynne@sciencewithamission.org.

my prayer was simple. I asked God not to allow me to forget. I knew it would be all too easy to return to the U.S. and forget what life was like for those brothers and sisters living in a place often called the Third World.

I returned to school to finish up my last two years. But as graduation approached, I had some decisions to make. I'd planned on going to graduate school—but hadn't forgotten my experience in Costa Rica. I wanted to do something to make life better in the poorest parts of our world. How could I do that with a Ph.D.?

I kept thinking that the best way to help people in the developing world was to become a missionary. So I prayed about it very intentionally, but did not feel called to be a missionary.

Students from Haiti and India discuss the results of a test.

I don't know how you pray, but I figure God already knows exactly how I feel, so there's no sense beating around the bush. So my next prayer went something like this, "Okay God. This is your entire fault. You gave me a passion for science and a heart for your people in the poorest parts of the world. I don't understand how these two things go together, but if you show me, I'll do it."

While awaiting a God-gram telling me exactly what to do with my life, I started looking at graduate programs. Then I learned about a technology called immunoassay, which is used in home pregnancy tests. This technology works without electricity, expensive equipment, or specialized training, and gives results rapidly—making it perfect for diagnosing diseases in the developing world. I felt God had showed the way to combine science and my faith.

I was keeping a journal at the time, and had many dreams about the future, and about using my scientific knowledge to help folks in the developing world. Still, one day I wrote, "I learned long ago never to engrave any plans for the future in marble. Where God is concerned, it's better to use pencil."

Soon afterward, I enrolled at the University of Kentucky, and four and a half years later I received my doctorate in bioanalytical chemistry. My plan was to work for an existing Christian non-profit organization such as World Relief, World Vision, or MAP International, and use this new technology to develop diagnostics for their medical work.

During an international course, Alynne MacLean demonstrates a simple diagnostic test. The class included students from the Philippines, Guatemala, and Bolivia, Pakistan, and India.

Unfortunately, after graduation I could not find any organizations using immunoassays. Since I needed a job, I went to work at a biotech company, using my training to help develop new medicines. But the idea of creating diagnostic tests for the Third World was never far from my mind.

So in 2001, after eight years of praying and working in biotech, I quit my job and started a non-profit organization called Science with a Mission, Inc. (SMI) to produce tests for diseases like malaria, HIV, typhoid, and hepatitis B.

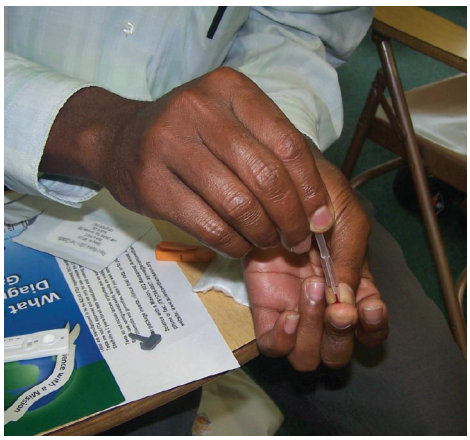
I expected to spend the majority of my time in the laboratory doing research. After all, that's what scientists do. But in reality, I spent a great deal of time on office duties: financial accounting, preparing for speaking engagements, designing brochures, writing thank you notes, etc.

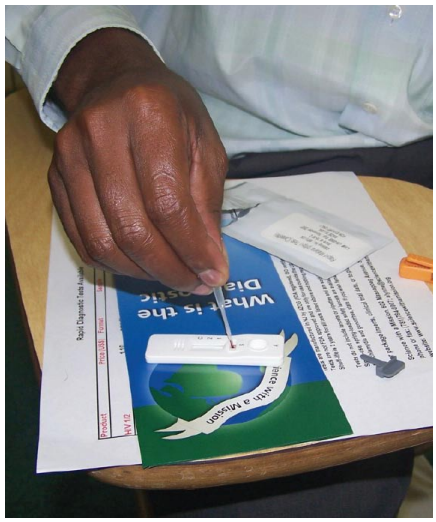
I had some money saved up when we started SMI, but was certain that if the work was going to survive long term, we'd need to receive a few large grants within the first couple of years. Here we are, six years later, without a single large grant. God has kept us afloat primarily by donations from individuals and churches.

I also figured most of my computer time would be used to research tropical diseases. But the majority of my time is spent answering emails from around the world. Regularly I phone my mom to share the latest stories. Like

the time a pastor from Uganda wrote to request HIV tests so his church could offer free screening to the community. He had learned about SMI from Fohle Lygunda, a Covenant pastor from Congo. Or when a nurse from To Every Tribe Ministries requested diagnostics for use in their free medical clinics in Mexico. Then there was a doctor with Health Teams International asking for diagnostics for his trip to China and North Korea. Or the time when someone from the World Health Organization left me a message to call him and I had to figure out the time difference between my home in Massachusetts and Geneva, Switzerland.

The biggest surprise came when I





A pastor from Burundi takes a blood sample (above), then tests it for malaria (right).

heard from Azubuike Ogala, the doctor who runs a small company called AZOG, which works with immunoassays. Dr. Ogala learned about SMI through a mutual friend and contacted me to see how we could work together. Raised in Nigeria, he was very aware of the need for diagnostics in the developing world. As a Christian, he wanted to use the resources of his for-profit company to make diagnostics tests available at a low cost. We worked out an arrangement where Science with a Mission can purchase AZOG's tests at a significantly reduced price. Those that can pay the high price of diagnostics can go directly to AZOG, but those in mission work come through SMI and get the lowest price possible.

In 2005, I traveled to the Democratic Republic of Congo thanks to the Paul

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Carlson Partnership. I had planned this trip for almost three years, so I had a lot of time to think about it. I hoped to deliver 5,000 malaria tests and 1,000 typhoid tests and then interview doctors at the Covenant hospital in Karawa about the need for these diagnostics. With the interviews, I could then produce an informational video and raise more support for our work.

Soon after arriving in Congo, I got very ill. I have multiple sclerosis (MS) and the heat had overwhelmed my body, cutting my trip short. But my illness brought me closer to Covenanters in Congo. I'd been staying with Mossai Sanguma president of the Congo Covenant Church (CEUM), and his wife, Sabuli Sanguma. Their eldest son, Nyenemo, had stayed with me for several days while in the States a year earlier, and they were happy to return the hospitality.

On the day before leaving Congo, I was lying in bed underneath a fan run by generator, trying to bring my body temperature down, when several visitors arrived. They had heard about my illness and wanted to thank me for bringing the tests, despite the risks to my health. (They also invited me to return when the weather was cooler.)

The next day, as I waited for a ride to the airstrip to begin my journey home, a verse kept running through my head: "My grace is sufficient for you, for my power is made perfect in weakness" (2 Corinthians 12:9).

I don't like this verse. I know God can use my weakness: as Paul said in Romans 8:28, God will work all things together for good for those called according to his purpose. This can even include a chronic disease like MS.

But I don't want God using my weaknesses—I want him to use my strengths. However, some things are out of my control. But I have learned one thing: God is good all the time. And all the time, God is good.

Looking back over the past six years,

Not long after Alynne MacLean visited Congo, Sabuli Sanguma met up with her on a trip to the U.S.

things have not turned out the way I expected—they have been better. To date, Science with a Mission has sent more than 39,000 tests to twenty-four different countries around the globe. This month I will travel to Uganda to deliver malaria medicine and 2,000 malaria and 2,000 HIV tests, give a presentation for nursing students at Uganda Christian University, and meet with church leaders and medical workers. The need is great, but God is greater.

Mother Teresa once said, "I am a little pencil in the hand of a writing God who is sending a love letter to the world." As you think about the gifts God has given you and how you might use them for his kingdom, write your plans in pencil. Or better yet, *be* the pencil and let God do the writing. ❑