

# Testing the Waters in Tanzania

RESIDENT DISCOVERS UNEXPECTED LESSONS IN INTERNATIONAL RADIOLOGY.

By Alyssa Martino

The physicians of Beth Israel Deaconess Medical Center in Boston may not often encounter a case of tuberculosis, but if a patient with the disease entered the center's hallways, Aarti K. Sekhar, M.D., would recognize the symptoms. Sekhar recently returned from the ACR's Goldberg/Reeder Travel Grant at the Kilimanjaro Christian Medical Centre (KCMC) in Moshi, Tanzania, where she sharpened her skills — both new and old.

Every year since 2008, the ACR has awarded two residents a \$1,500 grant to volunteer in a developing country for at least one month. Sekhar, who has been interested in international radiology for some time, seized the opportunity. "I have always sought and tremendously enjoyed new cultural and educational experiences," explains Sekhar, who has also traveled to Central America and Kenya for public health-related projects.



Aarti K. Sekhar, M.D. (not pictured), volunteered in Moshi, Tanzania, where Helmut Diefenthal, M.D., Ph.D., (top center), runs his radiology facility.

## Differences Exposed

Sekhar, an active member of the ACR, became determined to volunteer at KCMC after attending AMCLC 2009 and learning of Helmut Diefenthal, M.D., Ph.D., and his facility. "I didn't have much of an idea about what kinds of resources people have and how they deal with health problems like those in the United States," she explains. "I was eager to be exposed to new diseases and to learn how radiology was applied in Moshi.

"I definitely saw diseases that I will never forget," Sekhar notes, saying she witnessed illnesses that advanced clinical care has already eradicated in the United States. "In Tanzania, kids with strep throat won't get antibiotics, so they often develop rheumatic heart disease because of an autoimmune response that affects their heart valves," she explains.

On the other hand, Sekhar's experience with KCMC's technology was less about the unfamiliar and more about challenging herself to better use common imaging modalities. "At KCMC, physicians must rely on some of the more basic imaging equipment to diagnose patients," she explains. For example, in the United States, a CT or MRI would likely be used to gather more information about a pancreatic mass. In Tanzania, the only option is ultrasound.

"You had to be patient," she says. "You almost have to understand the disease better to diagnose it with more rudimentary technology. It really exposed my limitations and was humbling and motivating."

As a result, Sekhar greatly enhanced her X-ray and ultrasound expertise. "In the United States, where we have more resources and money, people tend to get a CT or MRI," she adds. "It's almost more difficult for us to read an X-ray. Yet if you become better at it, you can see the subtle findings."

Sekhar also gained several new skills, including those in echocardiography and ophthalmologic ultrasound. She views her prior underdevelopment in subspecialty areas like these a result of the heavy distinctions between subspecialties in the United States, where relying on others — such as ultrasound technologists — is more common than honing those particular abilities.

## Sustainable Impressions

One valuable part of Sekhar's daily routine in Moshi was giving lectures to the residents from Tanzania or neighboring countries. Her peers asked her to give a talk on the basics of MR physics, a subject that



With the help of the ACR's Goldberg/Reeder Travel Grant, Aarti K. Sekhar, M.D., (top right), worked alongside other residents at Kilimanjaro Christian Medical Centre in Tanzania.

previously intimidated her. "By reviewing electronic books and trying to explain MR physics to the residents there, I had many moments of self-realization," she says. "It was a great example of how the best way to learn something is to teach it to someone else."

Still, the most influential and encouraging teacher for Sekhar was Diefenthal himself. Though the days at KCMC lasted from 7:30 a.m. to 8 p.m., she was overwhelmed by his optimism and tirelessness. The 85-year-old radiologist has been active at the center since his twenties, and he still works 13-hour days.

However, Sekhar notes that Diefenthal's remarkable example is not an easy model to imitate. She hopes to establish a longitudinal relationship with a hospital in another country to cultivate ongoing ties and an active exchange of residents. "Many people think that radiology is not very conducive to doing international work," she says.

"Radiology is just as important in other parts of the world as it is in the United States. It's not just a resource for wealthy countries. The more we teach and share what we've learned, the more we can help people across the globe."

Want to volunteer in Tanzania or another developing country? Apply for the Goldberg/Reeder Travel Grant by contacting Brad Short, senior director of Member Services, at 800-227-5463, ext. 4975, or [bshort@acr-arrs.org](mailto:bshort@acr-arrs.org). For general information about the grant, visit <http://bit.ly/bDx8s6>. //