investing in a new BU

The Dahod gift supports research and has recruited talented faculty, such as Anurag Singh (top) and Hui Pong.

Saving Grace
**By Leslie Friday**

There are more than 2.5 million breast cancer survivors in the United States. One of them is University overseer Shamim Dahod, who also survived thyroid cancer.

“I got the best of treatment,” says Dahod (CGS’76, CAS’78, MED’87), who works as a primary care physician in Chelmsford, Mass. “But I know that everybody’s not that fortunate.” As a medical trainee 25 years ago at Boston City Hospital, now Boston Medical Center, Dahod witnessed the problems of underserved patients firsthand—some didn’t speak English, many had no insurance.

“There was no prevention for them, just emergency or catastrophic care. So when I went through breast cancer, I said, ‘I would like to do something to take care of that population.’”

Dahod and her husband, Ashraf, donated $10.5 million to the School of Medicine—the largest gift in the school’s history—$9.5 million of which will support research and endowments for the Shamim and Ashraf Dahod Breast Cancer Research Center. In addition, $1 million was dedicated to the new medical student residence at 815 Albany St., which opened this summer.

Nearly a third of the $9.5 million directed toward the research center was used to renovate the seventh floor of MED’s K Building. $2.5 million will support an assistant professor and an international scholar there, and just over a third will become the Dahod Breast Cancer Research Program endowment, with a portion to be used for salaries, recruitment, and supplies.

Breast cancer is the most common cancer among American women. According to the American Cancer Society, in the 1940s a woman had a one in 14 chance of developing breast cancer—now it’s one in 8. In 2011, nearly 300,000 new cases of invasive and noninvasive breast cancer were diagnosed among women and more than 2,000 cases among men. And while many of those diagnosed survive, last year alone nearly 40,000 women and a 10th as many men died from the disease.

BU researchers and clinicians battle breast cancer on multiple fronts and across many fields, looking at possible causes, disparities in diagnosis and treatment, and prevention of the disease. The Dahod gift will support many of those efforts and recruit new talent to BU.

“The center is the axis around which the School of Medicine can harness its many breast cancer research programs and projects,” says Karen Antman, MED dean and provost of the Medical Campus. “The ultimate goal is to understand the causes of breast cancer and develop prevention strategies and new treatments.”

Some of those new treatments may evolve from the work of Hui Feng and Anurag Singh, recruited last fall as the first researchers at the Dahod Breast Cancer Research Center.

Feng, a MED assistant professor of pharmacology and experimental therapy, works primarily with a protein called Myc, which internally regulates cell development and when unregulated, instructs cells to multiply uncontrollably. This hyperactive protein is the genesis of many cancers, including some breast cancers, and is the target Feng and a team of biochemical engineers would like to strike with alternative, and minimally toxic, treatments.

Singh, a MED assistant professor of pharmacology and experimental therapy, studies a protein called KRAS, which also drives the development of many cancers—such as pancreatic, colon, and lung as well as a rare but aggressive type of breast cancer prevalent among African American women—when it fails to switch off. Quashing KRAS would seem the best cure, but the protein has been resistant to conventional chemotherapies, and novel drugs directly targeting it have so far been ineffective, according to Singh.

Instead he targeted another protein (TAKI) that works as its sidekick, and found that bombarding it with a specifically designed drug debilitated colon cancer cells. He suspects that focusing treatment on sidekick proteins may be a successful alternative treatment for other diseases, like breast cancer, and he hopes to pursue that option at BU.

Being part of the new center was a big draw, says Singh, who sees his new digs as a dynamic environment where researchers can conduct their work a stone’s throw from world-renowned colleagues and one of the nation’s largest safety-net hospitals. “Everything that we would need is here,” he says.

Longtime BU breast cancer researcher David Sherr says he’s pleased to work with “hard-core molecular biologists” like Feng and Singh. Sherr believes their presence will attract more first-rate investigators to the University. “The idea,” he says, “would be, if you build it, they will come.

“In the science we do, you can get down into the weeds pretty deep and it gets really technical,” says Sherr, a School of Public Health professor of environmental health, whose work analyzes how man-made chemicals may cause breast cancer (see page 56). “But in fact, in the end it’s a social science. Being successful depends on how you communicate with other humans and how you think, and think together, and how you can collaborate.”

Sherr, also a MED professor of pathology and laboratory medicine, says gifts like the Dahods’ are particularly helpful in this time of diminishing support of cancer research. He says the National Institutes of Health (NIH) used to fund grant proposals at 25 percent and the American Cancer Society (ACS) would fund another 35 percent. Now NIH funds 6 to 7 percent of proposals and ACS a mere fraction above that. “Having any kind of philanthropic contribution is hugely important,” Sherr says. “Then nucleating that kind of giving in a place like the center can help attract more philanthropy. And that’s what has to carry it.”

$10.5 million bolsters breast cancer research