

## Battling Ovarian Cancer

### Phenomix CEO Launches Nonprofit To Help With Diagnostics, Treatment

BY HEATHER CHAMBERS

Laura Shawver was well-acquainted with the ways cancer manifests itself in the human body. As a cancer researcher, she had studied the progression of the disease, a variety of drugs used to treat it, and even helped commercialize Sutent, a well-known drug for the treatment of two especially complicated types of cancer: kidney and stomach.

After studying the disease for more than 20 years, Shawver felt as if she knew it well. When the disease turned up in her body, Shawver was stunned.

"I never thought it would happen to me," said Shawver, who discovered in 2006 that she had ovarian cancer, the fifth most common cause of cancer death in American women. The American Cancer Society estimates that women have a one in 71 chance of developing invasive ovarian cancer. More than 20,000 women are newly diagnosed each year.

Rather than resuming life as usual after rounds of chemotherapy and surgery to remove her tumor, Shawver did what she knew best: begin her next experiment.

Last year, Shawver established a foundation intended to change the status quo of ovarian cancer treatment. She debuted the organization to about 75 people Sept. 17 with a fundraiser event held aboard the America's Cup yacht, the America.

The nonprofit Clarity Foundation works to connect women with diagnostic services that profile their individual tumors. The foundation also helps pay for service, estimated to cost about \$1,000 per person, for the uninsured.

Her mission proved to be a formidable task during a busy time.

Shawver, who is chief executive of the San Diego biotech company **Phenomix**, was leading the company through a \$55 million round of financing at the time.

"Thank goodness there was wireless in the infusion suite," she said with a chuckle.

While Shawver succeeded in raising money to push forward clinical research on hepatitis C and type 2 diabetes, her own progress in fighting the war on cancer had hit a snag. As a patient, she quickly learned that the scientific innovations that were being applied to improve many other cancer treatments were not benefiting woman with ovarian cancer. While women with breast cancer have access to information about the genetic markers that differentiate their tumor from another's, giving oncologists information to match them with drugs that target those markers, women with ovarian cancer have limited information.

"When I was diagnosed with my ovarian cancer, I thought there was going to be some science in my treatment, I was going to be molecularly profiled," Shawver said. "What I found was

it was difficult to get it done. I had to go from lab to lab. There wasn't any way to do it and do it quickly."

Shawver knew that if she and her oncologist could identify her tumor's unique profile, or its molecular "blueprint," they might be able to match it with a drug that, when added to standard chemotherapy, could pack a one-two punch.

#### Personalized Medicine

Matching individuals with customized treatments is part of a revolutionary push in medicine known as personalized medicine. The approach is still mostly experimental.

"Its sort to like where the Internet was 15 years ago," said Rachel Leheny, managing director of the private equity Caxton Advantage Life Sciences Fund who serves as a Clarity Foundation board member. "The question is, how do you jump-start that?"

Shawver said she searched but couldn't find a service to analyze her tumor profile, and ended up receiving the kind of treatment most ovarian cancer patients receive: standard chemotherapy and surgery.

The Clarity Foundation is still in its early stages but has raised \$375,000 so far through the support of local patent attorneys, investment bankers and medical executives.



Michael S. Domine

**Phenomix CEO Laura Shawver started a foundation to connect women with diagnostic services that profile their tumors to identify optimum treatment.**

Shawver said she ultimately aims to raise enough money to conduct a clinical trial, one of the challenges surrounding ovarian cancer research because relatively few women have the disease and are eligible for enrollment. The foundation also aims to publish its findings, keeping individual information anonymous, on a database accessible to other researchers.

Women with recurrent ovarian cancer might also benefit.

"One of the biggest challenges in treating ovarian cancer is the cells can mutate and become resistant (to chemotherapy)," said Sheryl Saenz, associate clinical professor of gynecologic oncology at UC San Diego's Moores Cancer Center.

Saenz, who is not involved in the foundation, said although the customized approach is experimental, there is value in knowing an individual's molecular tumor profile.

"I think it's important information to gather," she said.