

Enron founder Kenneth Lay's memorial service draws many high-profile guests
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WEDNESDAY'S CLOSINGS

▼ Dow Jones 11,013.18 (-121.59)

▼ Nasdaq 2,090.24 (-38.62)

▼ NYSE 8,113.18 (-93.10)

▼ S&P 500 1,258.60 (-13.92)

▼ 30-year bond yield 5.14 (-0.01)



BOB OWEN/STAFF

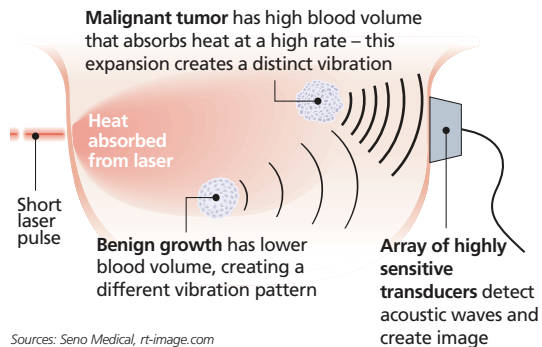
Janet Campbell, CEO of Seno Medical Instruments, and Ron Branstetter, president and COO, both have a history of taking medical technology out of the laboratory and into the marketplace.

New breast cancer detection tool

Seno Medical is developing new technology that combines light and sound to produce high contrast images for breast cancer detection. They believe the new technology will detect smaller growths often missed by mammograms, and eliminate unnecessary biopsies by differentiating between cancerous and benign tumors.

How it works

Optoacoustics rely on the light energy absorption qualities of tumors to determine whether the growth is malignant or benign. Near-infrared light on one side of the soft tissue creates vibrations that are read by acoustic sensors on the other side.



Sources: Seno Medical, rt-image.com

MONTE BACH/STAFF

Better cancer detection

S.A. firm hopes to market noninvasive way to check lumps

By TRAVIS E. POLING
EXPRESS-NEWS BUSINESS WRITER

The way breast cancer is detected and treated is getting a makeover from a fledgling San Antonio firm.

Seno Medical Instruments Inc. was formed in September 2005 to commercialize a technology called optoacoustics, a method that marries lasers with ultrasound to detect breast cancer and possibly eliminate painful biopsies to determine if tumors are malignant or benign.

At the helm of the company are Chief Executive Janet Campbell and President and Chief Operating Officer Ron Branstetter.

Both have a history of taking medical technology out of the lab and into the marketplace.

Campbell was involved in the initial public offering of medical software firm Inform Medix Holdings Inc. of Rockville, Md., where she was

president and chief operating officer. She also held top executive roles at Mach Diagnostics and Health Tech Inc., companies for which she helped raise millions of dollars in venture capital investment.

Branstetter was previously president of Colin Medical Instruments, a San Antonio subsidiary of a Japanese medical firm. He also was president of Colin spin-off WaveNexus, a medical device company.

Campbell said the potential market for the breast-cancer detection applications of the technology could be worth billions of dollars, and she estimates it's about two years away from being available in imaging centers and hospitals. The next application planned is for detection of prostate cancer.

Houston-area researcher Dr. Alexander Oraevsky, who is now head of research at Fairway Medical Inc., developed the technology Seno is charged with getting into the research labs, hospitals and diagnostic imaging centers.

Fairway so far has raised more than \$10 million in research grants from govern-

ment agencies, including the National Cancer Institutes and the U.S. Department of Defense.

Seno is working on its first round of \$6 million in investments to begin the commercialization process.

Seno came together in San Antonio because Campbell moved to the city from the Washington, D.C., area for personal reasons.

"San Antonio's been very gracious to Seno," Campbell said of the search for investors. She said Seno has raised more than \$3 million from investors mostly in San Antonio and Dallas, with some capital coming from outside the state. Fairway is the largest equity owner in Seno.

"This science has been well-vetted," Campbell said of more than four years of testing through Fairway.

For decades, the standard way to diagnose breast cancer has been to compress the breast and take a mammogram image. Though technology has improved the accuracy of the process over the years, there is still a 10 percent to 20 percent chance of a false negative result, said Dr. Karen Fields, CEO of the Can-

cer Therapy and Research Center and a breast cancer specialist.

That means that as many as one out of five mammograms show there is no tumor when one does exist.

What's more, it still takes an invasive biopsy to determine if the tumor is cancerous.

Fields said Seno and Fairway are among several firms that are looking for a better way to diagnose breast cancer including magnetic resonance imaging for breasts and tomosynthesis, which uses technology similar to CT scans.

Seno's device requires the patient to lie face down on an exam table with depressions for the breasts. A safe and short laser light pulse is sent into one side of the breast, where the energy is scattered throughout the tissue and creates vibrations as the tumor tissue is heated.

Acoustic transducers surrounding the breast then detect the vibrations and send the data to a computer that produces an image of the tissue. The frequency of the vibrations indicate the existence of a mass and indicate if the tissue is oxygenated or healthy and benign, or if it is

deoxygenated from a growing cancer feeding on the blood.

The company is now working with San Antonio's non-profit Cancer Therapy and Research Center to design clinical trials to further test the technology in humans.

Seno expects to have its first product, a model for researchers to apply to their own diagnostic needs, in about nine months. That application does not require a go-ahead from the U.S. Food and Drug Administration. FDA certification of a clinical device is expected in 24 months, but Seno isn't quite ready to submit data to the agency for pre-market approval, Campbell said.

She said the final assembly of the diagnostic equipment will be done in San Antonio and the business plan calls for about 120 local employees over time.

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