

SpineMatrix closes \$8 million financing round

By **CHUCK SODER**

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SpineMatrix Inc. has closed on an \$8 million round of financing led by Psilos Group, a New York City private equity firm, said SpineMatrix CEO Ben Shappley.

Akron-based SpineMatrix will receive \$6 million from Psilos. The company also received a \$900,000 loan from the Ohio Department of Development, and the rest of the money came from investors from within the company.

SpineMatrix will use the money to start manufacturing and selling its technology for diagnosing back pain. The product, called Computerized Electrophysiological Reconstruction of Spinal Regions, detects muscle tension in a patient's back to locate the source of back pain.

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Doctors often have trouble identifying where back pain is coming from even after penetrating the skin, Mr. Shappley said.

"The need has clearly been acknowledged," he said.

SpineMatrix estimates it will hire 14 more people this year, which would increase the company's total staff to about 20 by the end of 2007, Mr. Shappley said.

Eight or nine of the new hires would be located in a 2,800-square-foot office in the Akron Global Business Accelerator. Those employees, within three months after the financing round closes, would begin making the device's most important part: Clear, rectangular sheets that attach to a patient's lower back. The patented, disposable sheets contain 63 dime-size electrodes that measure muscle tension in the back.

The hardware and software needed to display the information picked up by the electrodes will be built by GVI Medical Devices Inc. of Twinsburg. The diagnostic imaging equipment company will not hire additional employees to handle the work, said Mike Tartamella, GVI's vice president of finance.

SpineMatrix plans to market the product to the 200 biggest spine clinics in the United States, Mr. Shappley said, noting that the company first is planning to sell to the clinics with which it

already has worked.

“We know where our first year’s worth of product and inventory are going,” Mr. Shappley said.

Promising trial results

Clinical trials showed that the new technology is better than traditional methods at determining whether pain is coming from muscles, from discs between vertebrae in the spinal column, or from the joints between facets, which are the bones along the back of the spine that can be felt through the skin.

The studies found that SpineMatrix technology correctly identified the source of pain 98% of the time when it came from a muscle, 88% of the time when it came from a disc and 95% of the time when it came from a facet joint.

Traditional methods found the correct source of pain between 30% and 50% of the time when it came from a disc or a facet joint, according to the studies. Mr. Shappley did not have an estimate of how often doctors were able to find the source of pain when it came from a muscle, though he said it was lower than his technology’s 98% accuracy rating.

The muscle study was conducted at the Ohio State University College of Medicine, the disc study was done at the Texas Back Institute, and the facet study was done at the Cleveland Clinic.

Now that's painful

Increased accuracy allows doctors to avoid taking invasive steps that are more expensive and more painful as they try to locate the source of pain. For instance, a discogram, used to search for problems in discs between vertebrae, costs an average of \$5,800 and is extremely painful as it involves inserting a needle into the discs until doctors find the one that recreates the patient’s back pain, Mr. Shappley said.

“Some people ... liken it to childbirth,” he said.

The Innovation Ohio Loan Fund in February approved a \$900,000, five-year loan that SpineMatrix will repay at 8.25% interest. The company got the loan because the technology appears marketable, could lower health care costs and already has the backing of the U.S. Food and Drug Administration and investors, said Tracy Allen, manager of the Office of Financial Incentives within the Ohio Department of Development.

“It had potential for great growth,” he said.

SpineMatrix previously received \$9.5 million in investments.