

# Monday's Business

## 10 patients in India testing NH heart belt

**HAMPTON** — A Tech Designs Inc. founder Karl Leinsing, 43, a Hampton inventor who developed a device to correct malfunctioning heart valves, reports his device has been successfully implanted in 10 patients in India.

Leinsing, a contract engineer, made a prototype of the device to treat a condition called mitral valve regurgitation, in which a heart valve begins leaking. The heart is less efficient and grows larger to compensate, changing its architecture.

Leinsing perfected a silicon belt that functions to hug the heart to stop leakage and remodel its shape.

Three hundred of Leinsing's prototypes were initially manufactured for Mardil Inc., that secured \$5 million in venture capital to carry out a small clinical trial in India.

The company is now raising \$10 million to \$15 million to begin a U.S. trial in three months.

"We now have 10 humans with the implant in India and all is going well," Leinsing said. "The next step is clinical trials in the U.S."

The device allows doctors to make three small incisions to install the belt.

Mardil Inc. is a two-employee company started in 2003 by CEO Gopal Muppurala, a former employee of Bayer and GlaxoSmith-Kline, and his wife, Dr. Krishna Talluri.

Mardil wants to begin a trial of 300 patients in the United States. It is seeking up to \$20 million to begin its U.S. trial.

Leinsing previously built a component for the surgical device NovaSure — used to reduce excessive menstrual bleeding — and made a needle-free intravenous system for Cardinal Health Inc. He also worked on mitral valve repair for Mitralign Inc.

Leinsing said he manufactured the prototype for Mardil over the course of two years.

— Jim Kozubek



COURTESY PHOTO

Karl Leinsing, a veteran of designing prototypes for the medical industry, developed a silicon heart belt to treat faulty heart valves.