Dallas entrepreneur's latest device interrupts nerve signals to relieve pain

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At 29, Will Rosellini has accomplished more than what it takes most people a lifetime to start.

The degrees: masters in business administration, accounting and neuroscience from the University of Texas; a law degree from Hofstra University in New York; and a master's in computational biology from Rutgers-New Jersey Institute of Technology. The extracurricular activities: 16th-round draft pick of the Arizona Diamondbacks in 2000, right-handed pitcher for the Diamondbacks' minor league system in 2000 and 2001; member of the U.S. silver medal-winning Junior Olympic Team in 1995 and bronze medal team in 1997.

Business success: Started a business with his father and sold his stake for an undisclosed amount in 2007. Now he is president and CEO of a second company, Dallas-based MicroTransponder Inc., which creates new ways of relieving nerve pain.

On Tuesday, the privately held company is expected to announce it has raised $4.85 million in the past 11 months to develop a wireless neurostimulation system to treat patients with chronic pain. In conversations, Rosellini plays down his accomplishments. "Some say I was on an ambitious track after I left pro baseball because I was on a mission to create a new robotic right arm," he quipped. Friends and former professors say his real gift is in wanting to know more – about everything. He's working on a master's of nanoscale physics at Rice University, with expected completion in 2010, and a master's of regulatory science from the University of Southern California to be completed later this year. He's also a neuroscience doctoral candidate at the University of Texas.

Primary focus

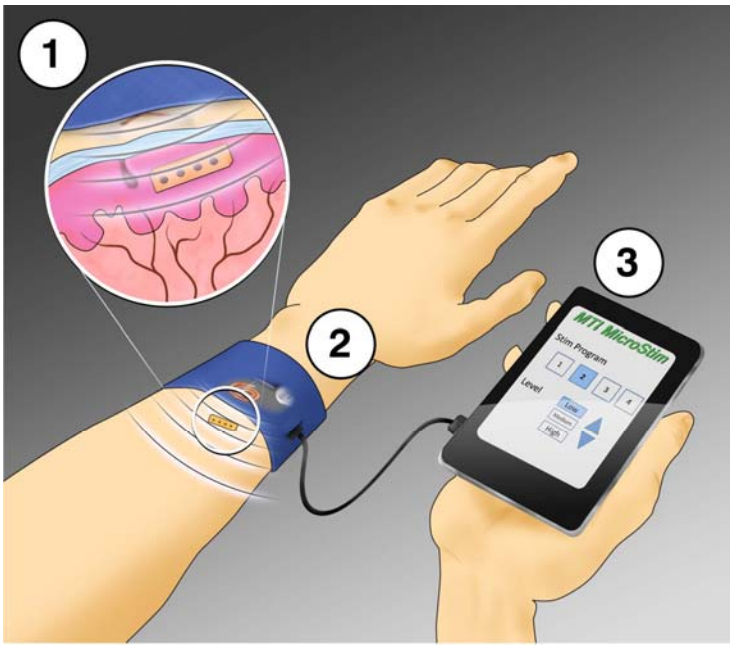
Rosellini insists his primary focus is on developing the neurostimulation system with company co-founder Dr. Larry Cauller, a UT-Dallas neuroscientist. The system uses wireless signals from an armband to generate a small electric pulse in an implanted device, which blocks the chronic pain signals from reaching the brain. The patient uses a handheld device to control the level of pain relief. "We're basically hijacking the signal from the nerves and giving the brain a new message," Rosellini said. Other neurostimulation systems on the market are wired and require an implantable internal pulse generator, battery and leads, Rosellini said. The company said it

expects the system to win approval from the U.S. Food and Drug Administration next year. The world's neurostimulation market is expected to reach $5.2 billion by 2012, according to report from Global Industry Analysts, a San Jose, Calif., market research firm.

A new way to relieve chronic pain

MicroTransponder's system targets chronic pain of the trunk and limbs without requiring an implanted battery or wires. The system utilizes three components:

1) A tiny device, 2 centimeters long, is implanted under the skin and generates a small electric pulse that blocks the chronic pain signals from reaching the brain
2) An external controller worn like an armband uses wireless signals to trigger the implanted device
3) A handheld PDA controls the pain relief program to suit the individual's specific needs.



MicroTransponder already has caught the attention of technology powerhouse Texas Instruments Inc. They do not have a contract but have been in discussions about a future collaboration, both companies said. "Their approach – implanting these stimulation devices using a standard 16-gauge hypodermic needle – is certainly novel in neurostimulation," said Steven Dean, medical marketing director at TI. MicroTransponder also has drawn notice from the Texas Emerging Technology Fund, a program created to speed development and commercialization of new technologies. In May 2008, MicroTransponder received $1.38 million from the fund after undergoing extensive vetting, including scrutiny from a peer advisory committee. It also has received three Small Business Innovation Research grants from the U.S. Department of Health and Human Services.

Longtime friends

Rosellini's explanation of his complex achievements is surprisingly simple: "I surrounded myself with people of like-minded interests." Frank McEachern, former attorney for Baker Botts LLP, and Jordan Curnes have been Rosellini's friends for more than 15 years and now serve as chief financial and chief operating officers. All three attended Jesuit College Preparatory School in Dallas. Curnes said their persistence has made them successful, "I was always so impressed with Rosellini's unceasing determination and ability to adapt quickly to change."

Dr. Joseph Picken taught Rosellini in the spring of 2003 in his introductory entrepreneurship class at UTD. At semester's end, students had to submit a business plan, which led to Rosellini's first venture, Texas Onsite Dental, which dispatched dental care to nursing homes. "We've had over 900 students taking entrepreneurship classes in our [seven-year-old] program," Picken said. "Will happened to be the one who had a better sense of the process." According to Picken, Rosellini's greatest skill is hard to teach. "He has enough sense to know he doesn't know everything," Picken said. "And he gets the right people to help him."