



Ontario Centres of Excellence

Where Next Happens

Instant Information for Health Care and Wellness

“Four years ago I was a family physician with a vision. Now we will offer health monitoring equipment backed by powerful systems as a new way for people to manage health care and wellness. None of this would have been possible without the support of the Ontario Centres of Excellence.”

Jess Goodman, President, Vital Sines

Dr. Jess Goodman has a vision: an inexpensive, non-invasive sensor that could measure, monitor and analyze cardiovascular functionality - a key health measurement. Through Ontario Centres of Excellence (OCE) Inc., Dr. Goodman's start-up company collaborated with Professor Sri Krishnan of Ryerson University to create and commercialize the required technology.

Today, that start-up -- Vital Sines -- has an innovative technology and the capacity to bring it to market. The company has captured the interest of several target markets and is on its way to success.

Dr. Krishnan's research was funded in part by an investment from OCE's Centre for Communications and Information Technology. His research team developed a patented method for analyzing signals that measure the aortic pulse wave velocity of the heart. This measurement is considered by doctors to be a key indicator of cardiovascular health, and a way to determine if treatments are working.

Based on this method, the researchers also developed an inexpensive sensor that would efficiently capture and analyze a range of health and wellness data. A prototype of a wrist-worn heart rate sensor with a wireless connection to Bluetooth cellphones is being assembled that detects heart rate using an innovative sensor and signal processing. A major watch company has already expressed interest in the technology.

OCE was involved at every step along the way to getting Vital Sines into the marketplace and ready to operate. In addition to investing in the original research, the Tech Readiness program at OCE invested in the

development of the prototype and worked with Vital Sines to identify possible markets. A key activity was to focus on one market that would allow Vital Sines to launch a product and become sustainable. There has also been a direct investment in the start-up through OCE's Accelerator Investment Program, allowing Vital Sines to build the team needed to move this technology into the marketplace and attract additional investment.

“Four years ago I was a family physician with a vision,” explains Jess Goodman, Vital Sines's president. “Now we will offer health monitoring equipment backed by powerful systems as a new way for people to manage health care and wellness. None of this would have been possible without the support of the Ontario Centres of Excellence.”

Monitoring health care and wellness are the obvious applications, but Vital Sines is also discussing their technology with a video game software developer.