

Calgary software star Circle Cardiovascular promises the answer to everything heart-related as it prepares for potential IPO

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A Calgary company that is fast emerging as the imaging software standard bearer for cardiologists globally has raised \$10.6-million in advance of a possible initial public offering next year.

Circle Cardiovascular Imaging Inc. chief executive officer Greg Ogradnick said the funding, led by existing investors Kayne Anderson Capital Advisors of Los Angeles and Vancouver's Yaletown Partners, will help bridge the company until later this year, when it decides whether to pursue an IPO or a private funding in the range of \$75-million to \$100-million.

"We're very much on the fence," about which option to take, Mr. Ogradnick said, adding it will depend on valuations, availability of capital and investor receptivity.

Circle has worked with BMO Capital Markets, National Bank Financial and Credit Suisse, but hasn't finalized which bankers it will use as advisers on its financing, he added.

The 225-person company makes software used in cardiovascular magnetic resonance imaging (MRI) scanners to read, analyze and organize images consulted by cardiologists as they assess their plans of action for patients. The artificial intelligence-powered software is now distributed with new machines made by industry giants General Electric and Siemens. That accounts for roughly a third of Circle's \$30-million-plus annual sales; the balance comes from hospitals replacing software that came with their operating machines with Circle product.

More than 1,500 hospitals use Circle's software, including all of the world's 10 highest-rated hospitals, as rated by Newsweek, led by the Mayo Clinic, Cleveland Clinic and Massachusetts General Hospital. Circle, which believes its software can help shift more imaging to MRI machines from other methodologies such as nuclear imaging, says it has barely dented what it believes is a \$15-billion market opportunity.

"There is an opportunity to take advantage of all the tailwinds behind them and invest in some of these seeds they have planted as well as their base business to really accelerate their growth," said Kayne managing partner Nishita Cummings.

Circle is the latest in a string of emerging technology stars including Benevity, Neo Financial and Symend, that have brought much-needed diversity and employment to the oil-and-gas-heavy Calgary economy, which has suffered from a prolonged downturn notwithstanding a recent spike in energy prices.

"Circle is an example of technology companies we've been watching in Calgary that have now achieved a scale where they can continue to self-fund their growth and attract growth capital," said chairman and Yaletown partner Hans Knapp.

Mr. Ogradnick, a veteran health care entrepreneur, co-founded Circle in 2008 with Matthias Friedrich, a German cardiologist who'd been recruited to start up the cardiac MRI program at University of Calgary. Their goal was to build cardiovascular imaging software that was superior to programs prepackaged on MRI scanners.

The opportunity was vast: Heart disease is the leading cause of death globally and a huge drain on health care resources, with \$94-billion spent annually on imaging. But the science of gathering and analyzing images of the heart on tens of thousands of scanners globally is complex. It requires not only capturing images of the organ but

also measuring how it functions. About one in five procedures prove to be unnecessary, redundant or ineffective, based on frequent misdiagnoses.

Circle built a flagship program it calls cvi42, inspired by The Hitchhiker's Guide to the Galaxy book series, in which the number 42 is determined to be the "answer to the ultimate question" of life, the universe and everything. "For Circle's customers, cvi42 is the answer to everything cardiology," Mr. Ogrodnick said.

By using AI trained on images from several heart centres, Circle was able to automate parts of the process, organizing, reading and presenting images in a way that vastly reduced the time and effort required by cardiologists to do their jobs. A 2019 study in the medical journal *Circulation: Cardiovascular Imaging* found Circle's software not only matched the accuracy of human researchers but did the job 186 times faster, taking just four seconds, compared with 13 minutes.

"It's a perfect solution to a problem," said John-Paul Carpenter, a consultant cardiologist with University Hospitals Dorset in southern England. "Circle speeds up the work flow and provides a robust, easy-to-use solution which is streets ahead of the competition." He added Circle continually tinkers with the offering to make it easier to use and offers around-the-clock support. "I think it's setting the standard" in the industry.

Mr. Knapp said since Yaletown first invested in 2018, Circle "has done exactly what they said they would in the time frame they said they would do it," including tripling revenues and transforming its revenue model from one-time sales to continuing subscriptions.