DAVID BEBEE, RECORD STAFF

Huron Digital Pathology president Patrick Myles, left, chief operatiing officer Audil Virk, centre, and chief technology officer Savvas Damaskinos believe the company's TissueScope scanner has a bright future.

Huron Digital starting over with bigger vision

Carolyn Gruske, Special to The Record

Even though Huron Digital Pathology has been operating for more than 20 years, the company essentially is in startup mode.

Founded in 1994 by University of Waterloo professor Ted Dixon and graduate student Savvas Damaskinos, Huron originally was known as Biomedical Photometrics Inc. and then Huron Technologies Inc. before rebranding as Huron Digital Pathology this year. It is shifting its priorities away from manufacturing custom (or highly customized) medical and scientific scanning equipment into creating products that are much more standardized and commoditized, and that requires a new way of approaching the business.

"The challenge with being a custom supplier is you give me $1 million to do a project, I'll do that project. Then the next day I'll have to start again. You can't scale up," explains Patrick Myles, who was appointed president of the company this year.

"The way we need to scale up is with standard products. It's locked down to a certain revision, then you go and make five more and then 10 more. The challenge is to make sure you have the facilities and manufacturing capability. That's how you grow from 17 people to 100 people."

Myles joined Huron Digital in October 2014 after 18 years in senior management roles with Teledyne Dalsa, a Waterloo-based manufacturer of digital imaging products. Teledyne Dalsa, formerly Dalsa Corp., was founded by Savvas Chamberlain, an investor in Huron Digital through his company, Exel Research Inc. Chamberlain also is chair of Huron Digital's board.

Before Huron can expand its workforce or move into a building that offers more space for manufacturing than its current Waterloo facility, the company has to finish getting feedback from customers who are beta testing its slide scanners, incorpo-

rate those results into the final designs, ramp up production and get the finished products into the hands of a newly formed distribution network. If everything goes according to schedule, that should happen by the end of 2015 or early 2016. Additionally, company representatives have a dozen trade shows on their 2015 travel schedule in order to promote their TissueScope series of slide scanners.

Although Huron's customers tend to be high-level medical or research institutes, all of them use equipment that would be very familiar to anybody who took basic science courses in high school — microscope slides. Typically, the thin rectangular pieces of glass measure one inch by three inches (25 by 75 millimetres), but for some applications, including mounting sections of brain, prostrate or breast tissue, larger dimensioned slides are occasionally required. These can range from two inches by three inches (50 millimetres by 75 millimetres) to six inches by eight inches (150 millimetres by 200 millimetres). It is in handling these larger slides and digitizing the images that Huron carved out its business niche, even though its products can also scan traditionally sized slides.

"It's not easy to image a physically larger slide," says Myles. "In terms of uniformity of image, you want to make sure everything is in focus from the tip of one side of it to the tip of the other. It's not like you're taking one picture of the entire slide. You're taking multiple, multiple areas and putting them into a single image."

Digitized images offer many conveniences. They are easy to share if a researcher or pathologist needs a second opinion from a colleague in a different geographic region; they are useful as teaching tools, eliminating the need for every student to have access to a microscope; and they cut down the frequency with which delicate glass wafers and biological samples are handled and transported. But they aren't all that common, at least not yet. According to Myles, 95 per cent of samples are still viewed through the eyepiece lens of a microscope, and of the five per cent that are viewed on a screen or monitor, only 10 per cent of those are larger format slides.

Huron Digital Pathology

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Huron Digital Pathology history

Founded in 1994 as Biomedical Photometrics
Develops first DNAscope scanner in 1998
Name changes to Huron Technologies Inc. following injection of capital from Savvas Chamberlain and Mike Panayi in 2010
Company is rebranded as Huron Digital Pathology in 2015

Myles says there are a number of reasons why digitized slide images are only at the start of the adoption curve, including aging pathology professionals who are more comfortable with traditional microscopes and procedures. He also notes a limitation on their usage: while digitized images can be utilized for research or teaching applications or for consultation during a second medical opinion, government regulatory bodies don't permit pathologists or doctors to use them when conducting primary diagnoses, at least not yet. Huron is currently working with Health Canada to set up a clinical trial with the goal of getting its scanners government certified so their images can be used to conduct initial clinical diagnoses. Myles hopes to receive that approval in early 2016.

Whether Huron Digital earns that validation or not, Myles says the research and education market offers enough opportunities for Huron to grow, and he believes the way to capture the market is to produce good, intuitive products. "You could have two scanners and they could both scan at 40x, but what differentiates them is how easy they are to use," he says. "We want them to go, 'Wow, not only was that easy, it was a pleasure to use.' And then they call their colleagues and say, 'You've got to see this.' That's how you build a reputation and a company. That's a core value we have: we want to delight our customers." ■