



Biotech Daily

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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: Volpara Health Technologies

By TIM BOREHAM

ASX code: VHT

Share price: 77.5 cents; **Shares on issue:** 254,089,909; **Market cap:** \$196.9 million

Chief executive officer: Teri Thomas

Board: Paul Reid (chair), Ms Thomas, Roger Allen, Ann Custin, John Pavlidis, Karin Lindgren, Mark Bouw

Financials* (December quarter 2022): receipts \$NZ11.2 million (up 60%), operating cash flow \$NZ1.78 million, net cash flow \$NZ1.3 million, cash of \$NZ11.95 million

* \$NZ1.00 equals 93.2 Australian cents)

Major identifiable shareholders: Harbour Asset Management 14.9%, Patagorang Ltd (Roger Allen) 7.3%, Dr Ralph Highnam (KYC Trustees) 6.4%, Prof Michael Brady 2.8%, Marcus Sarner 2.35%.

New-ish Volpara chief executive Teri Thomas refers to “boobies” in a way in which her more straitlaced predecessor Dr Ralph Highnam would never have got away.

Ms Thomas's “boobies” are avian in nature - an allusion to the breast imaging outfit's new corporate mascot of the blue-footed booby (an endangered South Pacific species with distinctive blue feet, as the name implies).

“We enjoy having fun - life is too short,” Ms Thomas says. “But our purpose is quite serious: saving families from cancer.”

The frivolity about the Wellington, New Zealand-based Volpara's new emblem (named Kiko) also can't overshadow Ms Thomas's reformist intent to put the company on a more commercial footing.

In fact, 'elephants' are more likely to be mentioned at the company's Wellington HQ than blue-footed boobies. The metaphorical pachyderms are the larger customers that she wants Volpara to focus on, generating \$NZ300,000 or more of annual revenue, each.

"A \$300,000 sale is not the same as a \$3,000 sale, yet sometimes it can involve the same effort," she says.

Ms Thomas says some Asian contracts to date have averaged a humble \$US5,000 and "you can't get rich picking up beer cans".

The tough medicine appears to be effective, with the company reporting maiden net positive cash flow in the (third) December 2023 quarter.

Dense versus fatty

While Volpara provides algorithmic-based products to interpret and handle mammograms and improve practice management, the company's flagship product pertains to measuring the density or otherwise of breasts.

The mammaries are classed on a scale of A (extremely fatty) to D (not D-cup, but extremely dense).

About half of all women are dense-breasted, which in a scientific sense means they are well endowed with fibro-glandular tissues. The dense-versus-fatty assessment can't be done by hand, as they are not firmer to the touch as one might think.

The dense material contains the glandular lobes and the ducts from which most breast cancers originate.

As a result, they are four to six times more prone to cancer than fatty-breasted women.

The double-whammy for the dense breasted women is that tumors are white on the mammogram, while the background is white as well.

While a tumor in a fatty breast has a 90 to 100 percent chance of cancer detection at screening, this rate falls to 60 to 65 percent with dense breasts.

Volpara Density is an algorithmic tool to measure breast density and thus identify at-risk women for more frequent examinations.

The amount of this tissue is largely determined by genetic lottery as well as hormonal stimulation levels, which means the risk is reduced post-menopause.

Keeping abreast of the news

Given the increased risks, one would have thought that women should be informed of their breast density score when undergoing a mammogram.

Outside of Western Australia there's no requirement here, or in New Zealand.

But in eagerly awaited news, the US Food and Drug Administration (FDA) has ordered that density scores be provided to patients. While 38 US states already had such a requirement, the measure standardizes the process across the Union.

While the decision takes 18 months to come into effect, Ms Thomas says it is "an enormous validation of Volpara's work" and is likely to spur international interest.

"I fully hope and expect Australia and New Zealand will follow suit and institutionalize the processes to inform and empower women," she says.

Meanwhile, a humungous Dutch trial of 60,000 women showed that supplemental screening of dense-breasted women cut the incidence of interval cancers - those detected between screening - as well as false positives.

Busting out from Oxford roots

Volpara owes its existence to the University of Oxford, where founders Prof John Michael Brady and Dr Highnam met.

Prof Brady is a US entrepreneur and computer guru, who moved to the University of Oxford in 1986 to build a robotics lab. Motivated by the loss of his mother-in-law from breast cancer Prof Brady got together with Dr Highnam, who had completed a Doctor of Philosophy (D Phil) on breast density.

Based on Dr Highnam's theories, the duo devised a protocol for automatically quantifying breast composition from x-rays.

Dr Highnam founded Volpara in 2008 and the company listed on the ASX on April 26, 2016, raising \$10 million at 50 cents apiece. He stepped down in April 2022 and is now the company's chief science and innovation officer. Ms Thomas was elevated from chief executive to managing-director in October 2022.

In February 2021, the company paid \$US22 million (\$A33 million) for Boston's CRA Health LLC, a US quasi-rival that plays strongly in genetic testing and has close ties with the powerful electronic health record (EHR) providers. Volpara recently renamed the CRA Health system as Risk Pathways.

In late 2019, Volpara acquired the Seattle-based patient management software house Mammography Reporting Systems Inc (MRS) for \$NZ21 million (\$A19 million), funded by a \$NZ55 million capital raising, now known as Patient Hub. Volpara prides itself on being 'vendor neutral', which means its software can be used on any mammography unit.

Balancing profits with purpose

Ms Thomas's resume includes more than 20 years at the US health provider Epic, where CRA Health, coincidentally, had been integrated. By chance, she and her family ended up in New Zealand because of an Epic sabbatical program that sent valued staff on a trip to a country they had not yet visited.

"I thought New Zealand was a good outdoorsy culture in which to bring up kids," she says.

Based around the picturesque Bay of Plenty, Ms Thomas did some Covid nursing and pondered retirement before taking on consulting work for Volpara.

"I didn't think a New Zealand company would fit my background so I was bit surprised to get to know Volpara," she says.

Ms Thomas moved to cauterize Volpara's bleeding bottom line with a circa \$NZ11 million cost cutting drive that included retrenching 20 of the company's 180 staff. The two acquisitions were more closely integrated with the Volpara mothership.

Ms Thomas's mantra is "no money, no mission".

"The company's culture was great, but to be strong and sustainable you need to balance purpose with an eye on the money," she says. "Some people might have seen us as not-for-profit. But we are not. We are a public company and it is our fiduciary duty to return shareholder value."

The art of the mammogram

The company has devised Volpara Enterprise, now known as Analytics, an automated tool to help clinics improve the efficiency and performance of sites with multiple x-ray machines.

"Squishing a breast against a panel is not easy," Ms Thomas says. "Our analytics give feedback on the art of doing the best quality mammogram."

She says some technicians are trained to compress the breasts until the patient says 'ow!'

"Over-compression is painful, but I know some very stoic women and even if you pulled their fingernails off, they wouldn't say 'ow!'"

Another common clinical problem is that women are recalled for another mammogram and fear the worst. But more likely it's because the first scan wasn't of high enough quality.

The Volpara Live product can detect a sub-standard image before the client has left, hopefully avoiding the need for a revisit.

"They are often ignorant about why they are being called back," she says. "Reducing pain and reducing such frustration are the key drivers for us."

Anything else?

Volpara now has software for breast cancer risk assessment, volumetric breast density and mammography quality, as well as artificial intelligence and machine learning.

As a risk assessment platform, Volpara potentially has the ability to develop tools for other cancers as well as non-cancer diseases.

Cancers of interest include lung, ovarian, colorectal and pancreatic.

The MRS purchase also included a modest lung cancer screening business, Aspen Lung.

“The lung product is profitable, but they are not elephant size deals,” she says. “I’m keen to expand beyond breast and potentially beyond cancer as well.”

The company is also doing work with Microsoft on an artificial-intelligence-based tool to measure calcium build-up in arteries, which is a big heart attack risk factor for women.

“There’s lot of directions we can go.”

Finances and performance

Volpara achieved maiden net positive cash flow in the third (December 2022) quarter, of \$NZ1.3 million compared with a \$NZ3.1 million September 2022 quarter deficit.

Net cash flow from operations was \$NZ1.78 million.

Almost all of Volpara’s revenue derives from subscription income, with contracted annual recurring revenue of \$US25.6 million (six percent higher than the second quarter).

Ms Thomas cautions that not every quarter from now on will be cash flow positive, partly because of the timing of receipts. In the US, the company still has to go to its post box, collect the customer cheques and deposit them into the bank.

About 90 percent of Volpara’s revenue derives from the US and pretty much the rest from Australia.

The company held just under \$NZ12 million of cash at the end of December, which should be enough to fund its activities without the need to raise capital. The company also has an unused \$NZ10 million debt facility with Kiwibank.

The company reports its March (fourth) quarter results on April 28.

Over the last 12 months, Volpara shares have ranged between 92 cents (late March 2022) and 41 cents (late June 2022).

The shares hit a record \$1.99 in November 2019.

Dr Boreham's diagnosis:

Ms Thomas says that as with other healthcare providers, Volpara should do well in an economic downturn because "cancer doesn't stop and if anything, people get sick a bit more".

She adds that by eliminating some of the drudge work, Volpara's products should help attract radiologists and technicians.

"Screening mammography is not attracting new doctors and the average age is lengthening," she says.

As more 'elephants' join the Volpara game park the company should become consistently profitable while not forgetting its social charter.

"We are no flash in the pan," she says. "We do three million annual risk assessments and have thousands of facilities and technologists using our software."

Volpara products are used in about 40 percent of US mammograms. But because 80 percent of mammography clinics use only one product, the company really only has a 10 percent market penetration there.

"There's still a lot more we can do in the US," Ms Thomas says, adding she strives to make Volpara "the New Zealand equivalent of Pro Medicus".

Given Pro Medicus is worth \$6.8 billion these days, Volpara truly would be in elephant country if it even were one quarter the size of the ASX imaging success story.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. He's never danced with an elephant but sure has been called a useless booby a few times [but never by me – Ed].