

# Biotech Daily

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Daily news on ASX-listed biotechnology companies

# Dr Boreham's Crucible: Imricor Medical Systems

By TIM BOREHAM

**ASX code: IMR** 

Share price: 71 cents; CDIs on issue: 270,175,766; Market cap: \$191.8 million

Founder and executive chair: Steve Wedan

**Board:** Mr Wedan, Mark Tibbles (deputy chair), Anita Messal, Peter McGregor, Dr Jeffrey Leighton

**Financials:** (Six months to June 30, 2024) revenue \$US408,000 (up 105%), net loss after tax \$US6.9 million (\$US9.2 million loss previously). (September quarter 2024) receipts \$US305,000, net cash outflows \$US4 million, cash balance \$US19.6 million, 4.9 quarters of available funding

**Identifiable major shareholders:** Saville Capital 6.01%, Hart Capital 5,87%, Warren G Herreid II (including Kahr Foundation) 4.60%, HR Global LLC 4.15%, Siemens Medical 3.10%, Mark Tibbles 2.31%, Steve Wedan 1.9%.

Most biotechs savor the moment when they chalk up their first sales, but Imricor founder and CEO Steve Wedan almost regrets the company is generating small initial revenues in Europe from its novel ablation catheters.

"I almost wish we weren't, because there are companies in our space that aren't yet commercial and have a valuation three times ours," he says.

Ah! The old conundrum of being valued more extravagantly at the 'blue sky promises' stage than at commercialization.

"But (entering Europe) was the right thing to do," Mr Wedan says. "It establishes sites and grows our sales base."

The only ablation catheter designed for use with a magnetic resonance imaging (MRI) scanner, the company's mainstay Vision-MR has been approved in Europe for type I atrial flutter (AFL) since 2020.

As well as offering superior images to x-rays, MRIs don't involve the use of harmful radiation and contrast dyes.

The company is carrying out a trial pitched at obtaining US Food and Drug Administration (FDA) approval for AFL, as well as a trial for European approval for the trickier ventricular tachycardia (VT). Australian approval awaits.

"We take a time-consuming procedure with poor outcomes, to one that is efficient and quicker," Mr Wedan says.

#### **About Imricor**

An American electrical engineer, Mr Wedan founded Imricor to devise heart procedure catheters that could be guided by MRI, rather than traditional x-ray fluoroscopy.

Given his role at General Electric (GE) Medical Systems designing MRI scanners, he was familiar with unsuccessful attempts by the major heart companies to design such devices.

He was spurred by consultancy work with Maryland's Johns Hopkins Hospital, where doctors asked him to design MRI-friendly probes. Mr Wedan founded Imricor in 2006, with an initial focus on VT ablation.

The MRI-guided procedure is called interventional cardiac magnetic resonance (ICMR) imaging, with the first human ICMR procedure carried out at Germany's Leipzig Heart Centre in 2011.

In 2012, Imricor licenced its technology to Dutch technology giant Koninklijke Philips and in 2018 inked its first contract with the Dresden Heart Centre.

Imricor listed on the ASX on August 30, 2019, having raised \$13 million at 83 cents apiece.

The company is based in Burnsville, Minnesota, where it makes the devices and carries out research and development.

Imricor doesn't have any activities in Australia. It listed on the ASX after Mr Wedan was inspired by an ASX roadshow, spruiking the benefits of the antipodean bourse to US tech companies.

As Imricor's founder, chair, CEO and president, Mr Wedan is the heart and soul of the company (yep - pun intended).

# About ablation (not ablution)

Cardiac ablation addresses heart arrhythmias, or irregular heartbeats, manifested in rightside atrial flutter or left-side atrial fibrillation or ventricular tachycardia (rapid heartbeat).

Administered via a catheter through the vein, cardiac ablation uses electric impulses to scars abnormal heart tissue, blocking irregular electric signals and restoring a normal heartbeat. The process is carried out by electro-physiologists, who are specially trained cardiologists.

Any successful medical device company needs to be tackling a real and present problem and in Imricor's case it's the poor success rate of cardiac ablation.

Another problem is that x-rays need potentially toxic dyes to be able to 'see' the heart.

By the 1990s, doctors became concerned about patients' radiation exposure (especially as they lived longer and had more scans).

While the device is approved for atrial flutter in 31 countries, Imricor is actively selling in eight European nations and recently gained approval in Saudi Arabia and Qatar.

Seven European hospitals are active - or pending - users. These include Germany's Leipzig Heart Centre, Cardiovascular Institute of South Paris, Amsterdam University Medical Centre and Croatia's Dubrava University Hospital.

Imricor has also developed the Vision-MR dispersive electrode, which minimizes eddy currents induced on the device's conductive pads during MRI scanning.

Then there's the Advantage-MR EP (electro-physiology) recorder/stimulation system, which is the hardware that enables the catheters to be deployed.

A key point is that Imricor is not inventing a new therapy, but is merely making the procedures MRI-compatible.

#### On trial

Called Visibl AFL, the trial to support US FDA approval is at four sites: Johns Hopkins, Cardiovascular Institute of South Paris, Switzerland's Lausanne University and Amsterdam University Medical Centre.

The trial intends to enrol 91 patients, but this number can be reduced to 74 patients if safety endpoints hit the mark. Imricor hopes to complete the trial by the end of the year, with FDA approval targeted for mid-2025.

"It's a pretty low risk trial because it is a repeat of what we did in Europe already," Mr Wedan says - a reference to an earlier trial of 35 patients that had a 100 percent success rate.

Mr Wedan says approvals for new indications could be relatively quick because the consent relates to the catheter and associated cables, sheaths and ablation generator, rather than the disease itself.

Meanwhile, the company is carrying out a European trial to support an indication expansion to ventricular tachycardia (VT).

This is a big deal, because VT requires access to the left side of the heart, which for physiological reasons is hard to access. To achieve this, the device incorporates a steerable sheath and trans-septal needle.

Dubbed Visabl-VT, the trial expects to enrol 64 patients across initial sites in the Netherlands and Germany.

The company expects its first-in-human VT case in the next month or two.

"It's the first time MRI will be showcased for these procedures and I couldn't be more excited about it," Mr Wedan says.

The trial is expected to complete by September 2025, with European approval targeted for mid-2026.

# Finances and performance

Imricor recorded revenue of \$US405,000 in the six months to June 30, 2024, mainly consisting of equipment sales (\$US176,000) and consumables (\$US154,000). Service and consulting fees made up the rest.

In July, Imricor raised \$35 million in a two-tranche placement, at 52 cents a share (a 12 percent discount). The raising required shareholder approval, which was duly granted.

In September, the company followed up with a \$2.92 million placement to existing investors, at 38 cents apiece.

Imricor also has a convertible note on issue, a legacy of when the company was private. The accounts record a liability of \$US7.77 million, with outstanding principal and interest payments of \$US5.7 million.

To date, the company has expended \$US105 million to develop the devices.

Over the last 12 months Imricor shares have traded between 42 cents (June 19 last year) and 78 cents on October 18 this year.

The shares hit an all-time high of \$2.78 on October 30, 2020 and traded as low as 14 cents in June 2022.

# The size of the prize

As with most matters medical, economics are all-important.

In the case of VT procedures, Mr Wedan expects the device to be cheaper because two of the gadgets currently required - a mapping and intra-cardiac echo catheter - won't be.

The company cites a cost of interventional cardiac magnetic resonance (ICMR)-VT ablations in the US at \$US6,500, compared with \$US9,618 for an x-ray guided procedure.

ICMR atrial flutter ablations cost around \$US4,440, compared with \$US4,000 for x-ray guided ones. In the US, ablation surgery is reimbursed at \$US22,653 - including the cost of the device - with the surgeon pocketing \$US700.

Mr Wedan says Imricor's device will reduce VT surgery time from around six hours to "a couple of hours".

"If the doctor can do two procedures a day rather than just one because they take less than three hours instead of more than five, they would make more money that day."

Can't argue with those sums.

Imricor expects to sell the devices for \$US6,000 with a gross margin of 70 percent.

The company envisages the classic razor blade model, by which clinics buy the recorder/stimulator device and purchase the single-use catheters and electrodes for each new patient.

#### Hearts a flutter in Europe

In Europe, meanwhile, currently about 1,000 ICMR laboratories perform an average of 70 atrial flutter procedures each a year. The company estimates that snaring only five percent of this market would generate revenue of \$US12 million, at an average \$US3,500 per procedure.

The expected US market is about 1,100 sites, but revenues likely would be double that because of the availability of reimbursement.

Given the US accounts for about half of the \$US8 billion global ablation market, why tackle Europe first?

The roundabout reason is the company was involved in a seven-year project with the FDA on MRI compatibility and being a research partner with the agency was not conducive to being regulated by it.

"So, we took the commercial stuff and went to Europe first," Mr Wedan says.

As you do.

# Dr Boreham's diagnosis:

Mr Wedan notes the AFL market is shrinking – and that's not a reference to Australia's indigenous football code – but the ventricular tachycardia (VT) market is growing.

"There are lots of reasons, but one of them is that more people are alive with better cardiac care and VT becomes more prevalent with age," he says.

"Also, more people at risk of VT will be sent for a procedure, rather than monitoring or being implanted with an implanted defibrillator or drug therapy."

He adds the current curatives are only 50 percent to 60 percent effective.

"Ablation is curative, a defibrillator is there to help you if you need it."

Imricor looks to be heading in the right direction, but one nagging doubt is why the big heart device makers didn't think of an MRI-compliant catheter themselves, given that MRIs have been around since the 1970s.

The answer is they don't have the requisite smarts in understanding MRI electromagnetic fields.

Barring any unforeseen rivals emerging, Imricor will have a 100 percent share of the MRIguided market.

Meanwhile, Mr Wedan dubs 2024 as the company's best year to date.

"We have put the pandemic behind us and re-launched our products and are growing the sites and number of procedures."

He adds that the company won't really be a revenue story in 2024 or 2025, with the fruits of its labors becoming more apparent in 2026.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. He has never had an ablation, but plenty of morning ablutions to keep himself nice.