



Biotech Daily

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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: 4D Medical

By TIM BOREHAM

ASX code: 4DX

Share price: \$4.22

Shares on issue: 599,638,859

Market cap: \$2.53 billion

Chief executive officer: Prof Andreas Fouras

Board: Lilian Bianchi (chair), Prof Fouras, Dr Robert Figlin, John Livingston, Julian Sutton, Dr Geraldine McGinty

Financials (June quarter 2026): receipts \$5.38 million, operating revenue \$5.9 million, cash burn \$9.25 million, cash balance \$228 million

Identifiable major shareholders: Prof Andreas and Helen Fouras 11.2 percent, John Gill 0.8%, Brendan and Lynne Minehan 0.7%, Dr Sam Hupert 0.6%.

When meddling around in a wind tunnel at Monash University's wind-blown campus a couple of decades ago, Prof Andreas Fouras was not to know that his efforts would form a \$2.6 billion market capitalization company.

A mechanical engineer, Prof Fouras realized there was a better way to measure air movement through the lungs. In hindsight, that was a monumental 'Eureka' moment.

Prof Fouras founded 4D Medical in 2012, having ploughed all his money into the venture.

4D Medical's centre-piece is CT VQ, the "the world's first and only" non-contrast, computed tomography (CT)-based, ventilation-perfusion (VQ) imaging software.

"I had an inkling that it would [succeed], but I really wasn't certain," Prof Fouras says.

"I had a really clear plan and I was working my tail off to get it done."

Prof Fouras estimates that so far this year, he has slept in his own bed 19 times.

"My family is based in the US and I'm based in airports," he says.

With 4D Medical eyeing expansion from nuclear imaging to the computed tomography pulmonary angiogram (CTPA) sector, Prof Fouras' itinerant state won't change any time soon.

Getting wind of something big

A VQ scan evaluates both airflow (ventilation) and blood flow (perfusion) in the lungs.

The images show how well air and blood flow are distributed throughout the bellows, helping doctors identify areas of imbalance.

VQ scans are primarily used to diagnose pulmonary embolism (PE) or blood clots in the lungs).

But they can also be used for detecting other conditions including asthma and chronic obstructive pulmonary disorder (COPD).

As software, CT VQ is used with - but does not replace - computed tomography (CT) scanners.

Unlike the nuclear standard-of-care, the scans don't involve the patient inhaling radioactive 'dust' and the use of potentially hazardous contrast agents.

4D Medical's provident run started in late July last year, when imaging big brother Pro Medicus invested \$10 million in a hybrid (debt and equity) arrangement.

On September 1, 2025, the US Food and Drug Administration approved CT VQ, sending 4D Medical shares up 40 percent.

Two days later, the company said the US Centers of Medicare and Medicaid Services had granted public reimbursement for the device, at \$US650.50 a scan.

Securing reimbursement is just as important as the FDA approval itself.

Going back in time, in May 2020, the FDA approved 4D Medical's lung ventilation analysis software (XV LVAS), for imaging any lung indication.

Australia's Therapeutic Goods Administration approved XV LVAS in September 2020.

Unlike CT VQ, LVAS involves altering clinical workflows. Like an Elvis impersonator, it wasn't quite the real deal.

The company listed on the ASX on August 7, 2020 at 73 cents a share, after an oversubscribed initial public offer.

What's the problem?

Computed tomography pulmonary angiogram (CTPA) images inside blood vessels using X-rays and intravenous (IV) contrast dye to spot the clots.

With CTPA, 4D Medical promises to eliminate the need for a second scan.

Why so?

Typically, an emergency department admission might be cleared of a heart attack or other ailment, with the pulmonary embolism (PE) question unresolved.

CT VQ identifies PE on this initial scan, so that the patient doesn't have to be sent to radiology for a second scan using contrast dye.

Contrast dyes risk kidney damage and some patients are allergic to the agent.

Pregnant women are problematic, because they often turn up at an emergency department short of breath and need to be tested. (That's what having a baby pressed against your lungs will do).

Let's be Clear about the opportunity

So far, 4D Medical has signed up five major US hospitals – academic medical centres – for CT VQ.

But CTPA is an opportunity five times bigger.

"Most people don't realize just how big a problem pulmonary embolisms are for hospitals," Prof Fouras says.

Autopsies suggest they account for one-third of hospital deaths.

So why didn't 4D Medical pursue CTPA in the first place?

The idea is that CT VQ creates a beachhead. The company wins the trust of hospitals, solving installation, information technology and billing problems along the way.

Prof Fouras says the company wants to enter the CTPA market with data that convinces clinicians from the outset.

To do this, the company is undertaking a study called Clear.

Enrolling more than 1,000 patients, the multi-site study will be based at Massachusetts General Hospital Brigham. Other hospitals should join the study next year.

Prof Fouras says: “Rather than wasting energy in trying to push something with just enough evidence, we want to ... knock it out of the park so doctors say, ‘this is a no brainer’.”

News of the World

While the US usually is the be-all-and-end-all for healthcare companies, in March, European regulators approved CT VQ.

Prof Fouras dubs Europe as a “nice, big opportunity”, with more scans done there than in the US.

But reimbursement is only about 40 percent of the US rate and varies from country to country.

Australia’s TGA approved CT VQ in late June.

As usual, we’re a small market – although we do win a lot of Commonwealth Games medals against other faded colonies.

We also have one of the highest densities of CT scanners in the world, notably regional locations lacking nuclear medicine facilities.

Prof Fouras notes Australia always does population screening well. These include bowel, ovarian and - crucially – lung programs.

Veteran opportunity burns bright

Earlier, 4D Medical’s focused on the opportunity with US Department of Veterans Affairs and its sprawling network of hospitals.

The narrative shifted to the private market, but the veteran opportunity remains intact.

In July, Republican and Democrat Congressmen tabled a Bill in the House of Representatives, seeking \$US20 million for a pilot imaging program using four-dimensional technology.

(The Bill didn't stipulate 4D Medical. But given the company has the only such technology, it might as well have).

Many veterans are victims of toxic emission 'burn pits': bulldozed holes in war zones, in which items and substances are combusted indiscriminately.

The result is more plumes of acrid, black smoke than Dad's backyard incinerator in the 1970s.

About 5.5 million US veterans deployed to Middle East conflicts have developed diseases such as constrictive bronchiolitis, which current methods cannot detect.

DVA spans 176 hospitals, thousands of clinics and 400,000 employees.

"Four million veterans need burns pit screening," Prof Fouras says.

"It's a \$20 million pilot [program] but it's a \$4 billion opportunity."

Research papers suggest the alternative of a biopsy costs \$US30,000 per patient.

The Congress Bill's bipartisan support was unusual in these discordant political times.

But what politician would say 'no' to screening veterans who defended the flag, while saving taxpayers money at the same time?

Finances and performance

4D Medical's turnover for the year to June 30, 2026 came in at a modest \$7.2 million, 22 percent higher.

The company's sales derived from both LVAS and CT VQ scans, "with strong margins exceeding 90 percent".

The company also posted June quarter receipts of \$1.33 million, on a record volume of 105,970 scans.

The company burnt \$9.25 million in the quarter, leaving generous cash of just under \$228 million.

In March 2025, 4D Medical raised \$13.9 million in a placement and share purchase plan, at 36 cents a share.

Presciently, subscribing investors received options and then 'piggyback' options on top of that.

The options were well out of the money at the time – but then became extremely valuable.

In January this year, 4D Medical raised \$150 million in a surprise private placement, at \$3.80 a share.

Coinciding with European clearance, in late March, the company raised a further \$83 million at \$5.90 a share.

Over the last 12 months 4D Medical shares have traded between their historic low of 24 cents on July 31 last year and their all-time peak of \$6.79 on April 13 this year.

The shares have surged 1,100 percent over the last 12 months and at one stage were 2,500 percent higher.

Measuring progress

Prof Fouras says that in 2026 investors should measure the company's progress by how many hospitals it signs.

"In calendar 2027 you can measure us by how many scans we deliver."

By the end of the year, 4D Medical aspires to have more than half of the top 20 academic hospitals as customers.

"That would be my Christmas present," he says.

(Your columnist would be lucky to get a pair of undies and a set of hankies, but we bear no ill will).

"We are also providing quotes to non-top 20 hospitals," Prof Fouras says.

Don't get short with me

4D Medical is the third most short-sold stock on the ASX, with 'shorters' accounting for 13 percent of the register. Six months ago, the short position was virtually nil.

Prof Fouras believes the naysayers mistakenly perceive the stock as overvalued based on the lavish revenue and earnings multiples on which it trades.

But he believes the register may have reached 'peak short'. That's because the 4D Medical register is dominated by retail holders, rather than institutions.

In order to short sell a stock, an investor needs to borrow the stock from the latter.

"I don't think there's a lot more ammunition there for the shorters to keep shorting," he says.

Dr Boreham's diagnosis:

Prof Fouras says in its “years in the wilderness”, the company learnt about the need to package tech into focused products.

The company could have pursued dozens of indications, with a total addressable market of around US\$13 billion.

Prof Fouras said he knew the company had ‘made it’, when a “whale” – a bigwig professor from a large US hospital – approached him at conference to learn more about “this VQ thing”.

Prof Fouras expected to deliver a three minute ‘elevator pitch’, but the metaphorical cetacean asked whether an hour and a half was enough.

“At that moment I knew that CT VQ was going to sell like hotcakes across the US.”

Who knows what 4D Medical really is worth, currently?

But Prof Fouras cites a US total addressable market of \$US500 million – or \$US3 billion with the CTPA opportunity.

“Allow us to dream and - pound for pound - we will be the most profitable company on the ASX.”

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. Pound for pound, he is acutely aware of the need for focus ... now, where were we?