



Biotech Daily

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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: Dimerix

By TIM BOREHAM

ASX code: DXB

Share price: 6.8 cents; **Shares on issue:** 320,748,666*; **Market cap:** \$21.8 million

Chief executive officer: Dr Nina Webster

Board: Hugh Alsop (chair), Dr Webster, Dr Sonia Poli, Clinton Snow

Financials (March quarter 2023): revenue nil, cash outflows \$4.51 million, cash of \$4.02 million (* Pre raising. During the period the company received \$2.84 million in an advance of 80 percent of its expected R&D Tax Incentive, for the June to December 2022 period.

Identifiable major holders*: Peter Meurs 14%, Merchant Group 6%, Bavaria Bay Pty Ltd 2.3%, Yodambao Pty Ltd 2%.

Not surprisingly, Dimerix cites biotech golden child Neuren Pharmaceuticals as the shining exemplar of what happens to a company's valuation when a drug actually works.

Neuren had a market capitalization of \$220 million ahead of its phase III results for trofinetide (now named Daybue), to treat the rare neurological disease Rett syndrome.

The successful trial upped this valuation to \$520 million. Following US Food and Drug Administration (FDA) approval, the stock is now worth \$1.6 billion.

Turning to Dimerix, the kidney drug developer hopes for a similar experience with its candidate DMX200, which is in phase III trials to treat an orphan kidney disease.

“[Neuren] is a really strong example of what can happen when you take a strong asset into phase III into commercialization and manufacturing,” says Dimerix chief Dr Nina Webster.

However, Dimerix is not exactly sharing the investor love, with its shares halving over the last year in an inhospitable investing climate, generally.

The company’s thin cash position didn’t help, but the company has now sought to replenish the kitty with a \$12 million equity raising, in a complex mix of a rights offer, options and convertible notes (see below).

With Dimerix shares trawling record lows, are they a bargain punt or are investors telling us something?

Dimerix through the ages

Dimerix was founded in 2004 by Dr James Williams and former Macquarie Group adviser Liddy McCall, based on technology developed at the University of Western Australia.

The Williams-McCall tag team co-founded Tessitura Pty Ltd and then biotech investor Yuuwa Capital.

Dimerix Bioscience was acquired in July 2015 by the ASX-listed Sun Biomedical, which pursued unrelated ventures and changed its name to Dimerix Limited in November 2015.

Patent lawyer and scientist Kathy Harrison was appointed inaugural CEO in August 2017, having been the company’s sole employee when she joined in 2014. A year later the company appointed Dr Webster as CEO.

Also a patent lawyer, Dr Webster had held senior positions at drug companies including Wyeth Pharmaceuticals (now Pfizer), Acrux (as commercial director) and Immuron.

Last December chair and founder Dr Williams quit the Dimerix board, “effective immediately”.

Unblocking the renal traffic jam

Dimerix’ lead program is for the rare disease focal segmental glomerulo-sclerosis (FSGS). FSGS attacks the kidney’s filtering units - glomeruli - causing irreversible scarring and permanent kidney damage (and often failure).

Known as a chemokine receptor (CCR2) antagonist, DMX200 is being tested as an adjunct therapy to patients taking the current standard of care, the blood pressure drug irbesartan (a so-called angiotensin receptor blocker, or ARB).

The vicious circle of kidney disease goes like this: kidney hypertension and hyperfiltration build up ongoing pressure, resulting in inflammation (cell fibrosis and scarring).

The kidney cells (podocytes) die and won't regenerate and there's not enough of them to filter the claret.

The end stage is renal failure and either ongoing dialysis or a search for the equivalent of Kerry Packer's helicopter pilot (who donated the tycoon one of his spuds).

DMX200 has orphan designation, which allows for marketing exclusivity without generics for seven years in the US and 10 years in the European Union.

Striving for success against FSGS

FSGS affects about 210,000 people across the company's target markets of the US, UK, Europe, Japan and China.

There are about 5,000 to 6,000 patients in Australia and kids as young as two can be affected.

While the cause is unknown, genetic factors come into play.

"China has one of the biggest kidney disease problems in the world, with more than 100,000 people diagnosed with FSGS," Dr Webster says.

About half will get to end-stage failure in less than five years and many won't respond to transplants.

Kidney failure typically occurs within five years of diagnosis, with 60 percent of patients receiving a transplant experiencing recurring FSGS in the transplanted kidney.

Action stations

Dimerix has started enrolling its two-year, phase III study, dubbed Action3, which will recruit 286 patients at 70 sites in 11 countries. (For the bio-nerds, 'Action' abbreviates Angiotensin II Type 1 Receptor 2 Targets for Inflammatory Nephrosis.)

The patients stay on the angiotensin II receptor blocker (ARB) standard therapy and either get a placebo, or a nice dose of DMX200.

The primary endpoint is the reduction in the amount of protein (from blood) in the urine - proteinuria - which is a sure sign the potatoes aren't working well.

After the first 72 patients have been treated for 35 weeks, an independent board will take a squiz at the blinded data and recommend whether to continue or to halt the study.

It's hoped the study will confirm the results of the smaller 2020 phase II study, which showed a circa 17 percent proteinuria reduction relative to placebo, on top of a 15 to 20 percent benefit from the standard-of-care ARB (as measured by published data).

Dimerix chief medical officer Dr Ash Soman says the relevant literature suggests a 10 percent-plus decline in proteinuria is meaningful.

“Phase II was in a small population,” he says. “We want to confirm we are seeing that in a bigger cohort that de-risks it for shareholders as well as for patients, who don’t want to begin a two-year study if it’s not worth it.”

If the early results are positive, the orphan status of DMX200 means it’s possible the company will be able to seek FDA approval while the rest of the trial continues.

How much?

Glad you asked.

Dr Webster says orphan drug pricing is attractive because it is on the lowest patient co-pay and in the US, orphan drugs sell for an average \$US84,000 a year, while non-FSGS kidney drug Sparsentan (see below) sells for \$US120,000 a year.

Stayin’ alive ain’t cheap. But as Dr Webster notes: “It’s still a lot cheaper than being on dialysis for the rest of your life, or a kidney transplant.”

The company assesses the addressable market at more than \$US3 billion across its seven target geographies.

Another one bites the dust

Bad - or good - news! Another FSGS drug candidate has not met its phase III trial endpoints. The remedy, Trave Therapeutics’ Sparsentan, is an angiotensin receptor already approved for another rare kidney ailment called immunoglobulin A nephropathy.

“It’s disappointing for them and disappointing for patients,” Dr Webster says. “But it does mean that DMX200 is the only FSGS drug candidate in phase III for a disease that has no treatment.”

Tackling DKD ...

While FSGS is the most advanced program in the Dimerix repertoire, there are 23 million diabetes sufferers in the US alone - and 60 percent have diabetic kidney disease (DKD).

At face value, that suggests DKD is a more attractive market than FSGS.

But because a treatment would have to take the non-orphan road to development, the program is four to five years behind FSGS. The company is collaborating with the Australian Centre for Accelerating Diabetes Innovations (ACADI) on a potential DKD trial.

... and COPD and Covid

Dimerix' secondary candidate DMX700, is pitched at chronic diseases such as chronic obstructive pulmonary disease (COPD).

A mouse model saw "very promising" 80 percent reduction in lung damage, versus control - and not one of the rodents smoked.

"COPD is the third largest cause of death in the world, and is the only one with an increasing mortality rate," Dr Webster says.

Still on lungs, Dimerix was involved two investigator-led investigator studies of DMX200 to treat acute respiratory distress syndrome, the usual cause of Covid deaths

But the company is clearly focused on FSGS and both of these respiratory programs are on ice. The COPD program looks to have the best potential, if only because everyone is bored with Covid.

Finances and performances

Pitched at raising \$8.5 million, the rights issue was on the basis of one for every three shares held at 8.0 cents a share (\$4 million was underwritten by Bell Potter). For each two shares subscribed punters receive two options, one long term and one short term.

The short-term option is exercisable at 12.6 cents by March 31 2024, while the long term one is exercisable at 15.4 cents by June 2025. These dates align with the expected part one and part two Action3 read-outs.

With the convertible notes, Mercer Street Global Opportunity Fund has subscribed for an initial \$3.5 million tranche, \$1.9 million of which is subject to shareholder consent at an upcoming June 20 meeting. Within 18 months, Mercer can subscribe for a further \$8.5 million of notes by "mutual agreement".

The rights offer closed on Monday, May 29.

Dimerix shares have traded between 8.7 cents (September 10, 2019) and their current nadir.

Let's not go all the way

Dimerix has no intention of taking the drug all the way to market and refers to "material offers from multiple parties from various territories". What's more, the company signed non-binding term sheets on "commercially attractive opportunities".

Dr Webster says the company has been talking to potential partners for some time, but this activity went "off the charts" after phase III recruiting started.

“The reason is the design of the trial means the company could get to market halfway through the trial, which means we could be closer to market than you would think,” she says.

Dr Boreham’s diagnosis:

Dr Webster says the kidney diseases sector has lacked innovation for decades, but there’s been more progress in the past 24 months than the last 24 years.

One reason for the malaise is that large clinical studies needed to get to end-stage renal failure to prove or disprove a treatment.

Now, regulators are accepting so-called surrogate endpoints, such as proteinuria levels or glomerular filtration rate (essentially kidney function),

As we posited in our opening pre(r)amble, is Dimerix a bargain at current levels?

Of course, a phase III trial fail would send the stock to deeper penury, but all the company needs to do is to replicate the phase II results on a larger scale.

A positive trial result would mean that – yes - the stock is currently priced for trial failure and is thus a bargain, bearing in mind the program likely would be partnered well before the drug is marketed.

Dr Webster says Dimerix is in a “very interesting and exciting space” - but there are still plenty of sleeps between now and the early 2024 reveal of the Action 3 results.

Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. He had two kidneys at last count and they are not for sale even to tycoons - but do name a price anyway.