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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: Cyclopharm

By TIM BOREHAM

ASX code: CYC

Share price: $2.00

Market cap: $187.6 million

Shares on issue: 93,796,326

Chief executive officer: James McBrayer

Board: David Heaney (chair), Mr McBrayer, Kevin Barrow, Dianne Angus, Prof Gregory King

Financials (calendar 2022 year): revenue $23.22 million (up 31%), net loss of $6.61 million ($5.04 million deficit previously), final dividend per share 0.5c (steady), cash balance $20.3 million (down 30%)

Identifiable major shareholders: Anglo Australian Christian and Charitable Fund 14.2%, Barings Acceptance 12.3%, Chemical Overseas Ltd 8.6%, CVC Ltd 7.1%, Mr McBrayer 5.5%.

Many Aussie biotechs have endured a long wait to secure US Food and Drug Administration (FDA) approval for their drugs and devices, but Cyclopharm's three-decade quest for the agency's imprimatur surely sets the record.

On September 29, 2023 - or a smidge earlier - the nuclear imaging company's patience should be rewarded with the FDA approving its lung scanning tool, Technegas.

The reason for the confidence on timing is that in June 2021 the FDA issued the company with a complete response letter, or CRL, a list of ‘to-do’ items before it can consider an approval application.

Under the process, the FDA has 180 days to either approve or reject the application (hence the magic September 29 date, also known as the Grand Final Eve public holiday in football-mad Melbourne).

With the FDA’s laundry list of demands apparently satiated, there appears to be no reason to refuse approval.

Cyclopharm’s case is strengthened by the fact that Technegas is approved and used in multiple countries - including Canada - and has been for yonks.

In 1991, the company first tried to persuade the FDA to approve a less stable form of Technegas, but was thwarted over time by shifting regulatory sands, other relevant entities going bust and problems with a contract research organisation.

The FDA’s consent would open a market for pulmonary embolism diagnosis worth $US180 million ($265 million) a year, while Technegas can also be used for other lung ailments (see below).

The story to date

Technegas is being used in 64 countries including most European nations, Canada, Japan, Brazil, and - yes - Australia.

The company has seven offices directly serving 17 countries; the rest are looked after by distributors.

So far, the device has been used on four million patients, with no deleterious consequences.

Overwhelmingly, its use has been for pulmonary embolism, but Technegas can be used for other respiratory ailments such as chronic obstructive pulmonary disorder (COPD), asthma and - possibly - long Covid.

Dubbed as a ‘pseudo gas’, Technegas consists of tiny dry carbon nanoparticles irradiated with the isotope technetium-99.

For the Albert Einsteins and Robert Oppenheimers among us, technetium-99 is produced from decaying molybdenum-99.

The gas-like substance is freshly brewed at the bedside in a generator by heating a carbon crucible to 2,700 degrees Celsius and inhaled by the patient via tubing.

Only three to four breaths are required.

The nanoparticles have a six-hour radioactive life, after which they are eventually dispersed through normal lung excretion processes (a.k.a. breathing).

Background

Technegas was invented in the mid-1980s by Australian National University biomedical engineer Prof Bill Burch, who partnered with industrialist Ian Tetley to form Tetley Medical.

Technegas was commercialized after being approved in Australia in 1986 and in Europe in the early 1990s.

Cyclopharm was incorporated in 2005 and listed on January 2007, after raising $11 million at 30 cents apiece.

A pharmacist, Mr McBrayer joined in June 2008, taking over from John Sharman who went on to head up Medical Developments and then Universal Biosensors.

Mr McBrayer headed the nuclear medicine mob Syncor Australia, as well as Lipa Pharmaceuticals.

What's wrong with current methods?

The starting point with any new medical drug or device is what clinical or market void they propose to fill.

Currently, pulmonary embolisms are diagnosed with either an isotope called xenon-133, or by computed tomography (CT).

Xenon-133 requires a negatively-pressured room and a method to trap gases expelled by the patient. Xenon-133 also produces only two-dimensional images of the lung, compared with Technegas's 3-D glory.

Computed tomography is OK, but many patients can't undertake these scans because of conditions such as pregnancy or renal problems.

Then there's another technetium-99 based agent called DPTA, an abbreviation of a very long word [diethylene-triamine-penta-acetate - Ed].

Officially used for renal (kidney) imaging, DPTA has been deployed off-label for pulmonary embolisms.

Cyclopharm claims Technegas is superior to DTPA because of the shortcomings of DTPA's liquid aerosol delivery system that results in splotchy images.

Girding for US launch

The company is confident of snaring half the pulmonary imaging market within three to five years.

“Technegas has become the primary agent for ventilation imaging in our other markets and we expect that to happen in the US,” Mr McBrayer says.

The company intends to provide the generators for free, at least initially.

Because of the reimbursement available under existing codes, the 50-dose patient administration sets are expected to sell for $US7,000 a pop – more than two times the average price in other markets.

Cyclopharm is breathlessly awaiting its US entrée, with personnel recruitment and training and inventory build-up “well underway”.

The value of inventory stood at $8.29 million at the end of 2022, compared with $2.78 million a year previously.

What the FDA had to say

The agency’s complete response letter did not relate to the safety and efficacy of Technegas, but it was more about other aspects such as manufacturing controls (the units at made at the company’s Kingsgrove, Sydney HQ).

For instance, the FDA wanted to know if product quality could be maintained with isotopes from different sources.

“We reaffirmed what we already knew: how robust and consistent the technology is,” Mr McBrayer said.

The company had to buy a particle analysis unit that replicated the FDA’s favourite equivalent in the US - a challenging task during Covid.

The agency required much of the old and bespoke manufacturing equipment to be retrofitted, to enable real-time data manufacturing data. The FDA popped into the Kingsgrove facility in April 2021 and will do again in late July.

Pop the kettle on!

Trial and error

Along the way the company also kicked some own-goals, including assuming the FDA would accept the screeds of real-world evidence rather than requiring a trial.

No siree …

The FDA demanded a prospective phase III trial - albeit skipping the earlier two phases - with 240 pulmonary embolism patients targeted for enrolment.

Because pulmonary embolism is a life-threatening condition, it was hard to recruit patients in the emergency room given their priority was, like, staying alive.

With the onset of Covid-19, the FDA agreed that patients admitted for any lung ventilation study could be enrolled - and recruitment got off the ground with this 'all comers' approach.

Run across nine US centres, the trial highlighted the relevance of Technegas for other applications such as lung transplants, hypertension and cardiac shunts.

Finances and performance

Cyclopharm posted record calendar 2022 revenue of $23.2 million, up 31 percent despite the lingering pandemic-related supply chain problems.

Europe delivered the lion's share of direct revenues ($7.5 million), while Canada chipped in just under $3 million.

The company sold 3,347 patient administration sets, 268 more than previously (a nine percent increase).

Canada accounted for 923 of the sets, while a further 700 were sold in France.

Cyclopharm also sold 76 generators, compared with 57 previously.

In April this year, the company acquired its Danish distributor Dupharma ApS, for 100,000 Cyclopharm shares plus $65,000 cash.

The purchase is consistent with the company's strategy of buying-up distributors to enable more control of the sales process and diversify its revenue by selling non-company products.

Indeed, in calendar 2022, $9.2 million of revenue - almost 40 percent of the total - derived from distributing third-party products.

At the end of December, the company had cash of $20.3 million - enough to pursue the US launch.

Over the last 12 months, Cyclopharm shares have varied between 96 cents (June last year) and 2.20 (April 17 this year).

They peaked at $2.98 in January 2021 and were as low as 13 cents in March 2013.

A Divid-what?

Somewhat quirkily for a loss-making company, Cyclopharm pays a modest dividend and has done so since October 2015.

The final payout of half a cent took the full year dividend to one cent a share, steady on previously.

Mr McBrayer says the company is loss-making only because of the large sum spent on pursuing FDA approval over the years - an impost it does not expect to bear for much longer.

“It’s a modest dividend payout - we don’t go crazy,” he says.

Broker Bell Potter projects a $6.1 million loss in calendar 2023, morphing to a $3 million profit in 2024 and a $12 million surplus in 2025.

Beyond the gym

In its charter dubbed ‘beyond PE’ - as in pulmonary embolisms and not physical education - Cyclopharm is sponsoring trials pertaining to COPD, asthma, long Covid, lung cancer and other respiratory diseases.

Given the Technegas goes to anywhere in the lung that oxygen is distributed, all these conditions are relevant.

Mr McBrayer estimates the COPD market to be 30 times bigger than the pulmonary embolism market, with 500 million sufferers of COPD or asthma, globally.

“When you lose 70 percent of your lung function there is no turning back,” Mr McBrayer says, adding that anything that enables an earlier diagnosis is highly beneficial.

Cyclopharm is supporting six small trials being run by four health facilities, two in Australia and two in Canada.

Dr Boreham’s diagnosis:

In a left-field analysis, Mr McBrayer compares Cyclopharm with the ASX-listed logistics giant Brambles.

As Fawlty Towers’ Manuel would say: Que?

The analogy is all about the complex systems and supports around Technegas which - at its core - is a common and unpatented radio-isotope.

Brambles' pallets consist of "wood, paint and some nails", yet the company is a global leader in distribution because of its robust systems.

Valuing the stock at $2.80, Bell Potter cautions that medical imaging technology continues to move quickly and is always improving.

Lest a superior 'pallet' comes along, Mr McBrayer says Cyclopharm is far from complacent and is investing in technology to create further barriers to entry.

When we last covered Cyclopharm in May 2020, keen saxophonist Mr McBrayer hoped to "hear some sweet notes from the US drugs and devices gatekeeper before the month is out".

Not for the first time, his timing was a bit off-key but this time the FDA orchestra looks to be tuning-up to deliver a rousing finale.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. But he can distinguish his PEs from pulmonary embolisms, physical exams and price-to-earnings ratios.