



Biotech Daily

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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: Amplia Therapeutics

By TIM BOREHAM

ASX code: ATX

Share price: 22 cents

Market cap: \$23.6 million

Shares on issue: 107,441,000

Chief executive officer: Dr John Lambert

Board: Dr Warwick Tong (chairman), Dr Lambert, Dr Robert Peach, Dr Chris Burns

Financials (September quarter 2020): revenue nil, cash outflows \$523,000, cash balance \$3.76 million, quarters of available funding 7.2

Identifiable major shareholders: Platinum Asset Management 16%, Blueflag Holdings 7%, CTXT Pty Ltd (Cancer Therapeutic Cooperative Research Centre) 5.2%.

The notion that you can't teach old dog new tricks might have validity in canine husbandry, but it's less relevant in biotechnology circles in which companies constantly re-invent themselves.

In early 2018, Amplia was known as Innate Immunotherapeutics and it famously had just come a cropper with a phase II multiple sclerosis trial.

But not to worry. After considerable soul searching the company acquired the privately owned Amplia and its FAK inhibitor program. (Much more on FAKs later).

Innate changed its name to Amplia shortly thereafter (along with the board and most investors) and bunkered down to focus on treatments for pancreatic cancer and idiopathic pulmonary fibrosis (IPF).

Pancreatic cancer is one of the most fatal and difficult to treat cancers, while idiopathic pulmonary fibrosis is a debilitating lung disease

Amplia's (revamped) management diligently pursued its aims, while initially attracting little interest. But investors are now all-ears, with the stock quadrupling in value over the last 12 months.

Key catalysts are the start of a phase I trial and the US Food and Drug Administration's decision to bestow orphan drug designation for both conditions.

"The market took notice of these achievements which happened as and when we said they would," says chief executive John Lambert.

About Amplia

Amplia was owned by parties including biotech man-about-town Dr Chris Behrenbruch, scientist Dr Chris Burns and Peter MacCallum Cancer Centre researcher Dr Mark Devlin.

Amplia licensed the FAK assets from Cancer Research UK, with a patent life to 2033. But the program initially was the work of the Melbourne based, Federal Government-funded Cancer Therapeutics Cooperative Research Centre.

Dr Devlin is Amplia's chief scientific officer while Dr Burns graces the board. The head of cancer drug and imaging outfit Telix Pharmaceuticals, Dr Behrenbruch resigned from Amplia's board in February this year to focus on Telix.

Dr Lambert joined Amplia as a consultant in August 2018 and became chief executive in June 2019, replacing Simon Wilkinson.

Previously, Dr Lambert worked at the not-for-profit enterprise Medicines Development for Global Health and before that he spent 14 years heading drug development at the 'flu drug house Biota.

Meanwhile, former Innate director and major shareholder Chris Collins has well and truly left the building. (But his wife Mary hasn't. Mr Collins transferred his remaining 3,329,570 shares to Mary a year ago when it was a 6.26 percent stake – since diluted to 3.1 percent.)

Mr Collins was Donald Trump's congressional liaison who held 17 percent of the old Innate and heavily spruiked the multiple sclerosis program in country club Republican circles. In January, Mr Collins was sentenced to 26 months' jail after pleading guilty to tipping-off his son about the failed trial. This month he reported into a Florida prison camp to begin his stir.

Making it, not FAKing it

Amplia's lead compound is called AMP945 which - speaking of name changes - could do with a new moniker given the woes of another AMP.

AMP945 is a focal adhesion kinase (FAK) inhibitor, which is all about suppressing a bodily agent suspected of aiding and abetting the spread of tumors and fostering fibrosis.

"Most cancer treatments are designed to attack tumors directly by either poisoning them, or starving them of nutrients," Dr Lambert says.

"This is fine when it works, but tumors are cunning in that they tend to mount a defensive response which blunts the effect of many cancer drugs."

Tumors indeed have sneaky ways of protecting themselves.

They spread cancer to other parts of body where secondary tumors take hold.

They switch on new biologic pathways to compensate for the effect of the drugs.

Or they physically shield the tumor and dampen the immune response.

"By inhibiting or suppressing FAK activity we hope to undermine the role FAK plays in these defence mechanisms," Dr Lambert says.

"The job [of AMP945] is to remove the shield so the cancer drugs can do the job they were designed to do."

(En)roll up, roll up ...

The phase I trial is simple in nature, in that it intends to recruit 64 healthy volunteers at a single Australian site.

These kind folk will be subject to a single ascending dose, with later cohorts receiving multiple ascending doses.

The company expects recruitment to take six to nine months, with top-line results expected in mid-2021.

The trial is being undertaken by the Melbourne based contract research organization Nucleus Network.

If the results are positive, the company will lodge an investigation new drug application with the US Food and Drug Administration.

The oncology trials are likely to be in combination with an existing cancer drug, while the fibrosis treatment would be a monotherapy.

This (ad) alters nothing ...

Idiopathic pulmonary fibrosis (IPF) is a life threatening and progressive disease with limited treatment options.

The median survival time is only two to three years if left untreated.

'Idiopathic' implies there is no known cause, but it is linked to risk factors such as smoking or workplace exposure to harmful particles.

The available drugs act on different targets and only slow progression rather than reverse the disease, while also having nasty side effects.

Students of Australian biotechs would be familiar with the story of Adalta, which is also focused on IPF.

Unlike Amplia, Adalta is an immunological play based on tweaked antibodies called i-bodies. Amplia's tech is based on shutting down a biochemical pathway that creates fibrotic tissues.

Sagely, Dr Lambert doesn't get roped into commenting on Adalta, except to note the companies are same but different.

Or as they (usually) say around Flemington on the first Tuesday in November: horses for courses.

Mandatory Covid-19 bit

As the world gets more insight into the workings of the Sars-Cov-2 virus, it's become evident the dreaded lurgy can result in longer term lung inflammation and damage.

Not surprisingly, this is "incredibly interesting" to Amplia - although to management's credit it's not flogging the potential.

Dr Lambert says: "This is of a great deal of interest to us; it appears the long-term complication of Covid-19 might be another source of lung fibrosis."

Amplia, by the way, is also interested in non-alcoholic steatohepatitis (NASH), the liver disorder caused by a build-up of fatty tissue.

NASH is a bugger to treat and will be of enduring interest as capacious Asian nations such as China adopt poor Western diets.

Amplia's work is at an early stage but the company will build non-clinical data packages for other FAK inhibitor indications such as NASH and silicosis (a workplace conditions caused by exposure to particles).

“These are all important unmet needs and inhibiting FAK may play a role in treating each of these,” he says.

“We may initiate clinical studies subject to resources and commercial opportunities, but our focus more likely will be on licensing and co-development arrangements.”

Amplia has another compound, AMP886, at pre-clinical stage for other fibrotic models.

“It has some interesting differences to AMP945 that might give utility in other therapeutic areas, such as ocular fibrosis,” Dr Lambert says.

Finances and performance

Dr Lambert says Amplia is well placed to fund the phase I effort and the groundwork for a phase II trial, having raised \$4 million in a capital raising in August.

Given this effort was at 10 cents, there have been smiles all around.

Earlier in the year, two institutions joined the Amplia register: Platinum Asset Management, which holds 16 percent and Blueflag Holdings with seven percent.

Amplia shares have gained 400 percent over the last 12 months, with liquidity increasing significantly as well.

On October 20, the company copped an ASX query when the shares surged from 29 cents to a record 35.5 cents, to which the company gave the Fawcett Towers’ Manuel response: “I know nothing”.

The shares hit a record low of four cents on March 19 this year.

Dr Lambert says: “We have gone from a market capitalization of \$4 million 12 months ago, to around \$22 million today. Our liquidity has also increased significantly.”

Dr Boreham’s diagnosis:

On our usual cautionary note, Amplia is not the only drug developer interested in the FAK pathway and its clinical work remains at an early stage,

The Boston based Verastem is targeting a number of cancers by combining a FAK inhibitor with the so-called RAF/MEK pathways.

FAK! These acronyms are too much!

Based in Nanjing, China, Inxmed is combining a FAK inhibitor with an immune-oncology agent.

“The three of us are taking slightly different approaches to this,” Dr Lambert says.

There’s no doubt room for all, and in any event Amplia’s focused approach on pancreatic cancer and IPF appears prudent: both conditions are prevalent enough to be meaningful, yet small enough not to attract the big development dollars.

While 30 percent of all new cancers are breast, lung or colorectal, pancreatic cancers account for a not insignificant 2.5 percent.

“It’s a highly unmet need in cancer,” Dr Lambert says. “Current immune-oncology therapies work well for lung cancer and many melanomas but have had virtually zero impact on pancreatic cancers.”

While Collins and his Republican heavyweights might have been caught out with Amplia’s former incarnation, our (legal) tip is that with a sub \$30 million market worth, the company is one to watch.

“It’s a pretty exciting time for Amplia as we build momentum across multiple therapeutic opportunities and this provides attractive opportunities for investors,” Dr Lambert says.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. He doesn’t ride horses anymore because they are higher up than you think and very scary, a lot like the stock market.