

# **Biotech Daily**

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Daily news on ASX-listed biotechnology companies

## Dr Boreham's Crucible: Immutep

By TIM BOREHAM

ASX code: IMM

Nasdaq code: IMMP

Share price: 3.3 cents

Market cap: \$111.7 million

Shares on issue: 3,383,598,296

Chief executive officer: Marc Voigt

Board: Dr Russell Howard (chair), Pete Meyers, Marc Voigt, Grant Chamberlain

**Financials (December quarter):** receipts \$146,000, loss of \$3.73 million, cash \$26 million, estimated current quarter outflows \$7.85 million

**Identifiable major shareholders:** Altium Growth 4-5%, Australian Ethical 4-5%, Marc Voigt 1.7%, Fredric Triebel 1.3%, Lucy Turnbull about 1%

\* Immutep told Biotech Daily that following a placement in December it was not able to confirm some of the major shareholders at the time of publication.

Formerly known as Prima Biomed, the immuno-oncology outfit is working in an increasingly crowded - or popular - space.

Around the world in 2017, there were 21 clinical trials pertaining to Immutep's target of lymphocyte activation gene 3 (LAG-3), a protein that regulates immune responses.

At the start of this year, there were 47 LAG-3 trials involving 11,000 patients.

So, who is the global leader in the emerging field? "It's a company called Immutep," says Immutep CEO Mark Voigt.

Well he would say that, wouldn't he? But it's hard to argue the point, given that it was the French immunologist and Immutep chief scientific officer Dr Frederic Triebel who discovered LAG-3.

#### How Prima became Immutep

A potted history here: Dr Triebel in 2001 founded Immutep SA, with the name inspired by the Egyptian god of medicine Imhotep.

Prima Biomed in December 2014 acquired Immutep for \$US10.8 million upfront, \$US7.2 million in milestones and \$US3 million in Prima shares.

In May 2016, Prima divested its original CVac cancer vaccine program to Sydys Corp of the US, for 9.8 percent of Sydys and \$400 million of potential milestones and royalties. The US entity had \$US800 in the bank at the time.

Let's just say this one is not mentioned in Immutep's dispatches these days.

Immutep has excelled in destroying shareholder value in the past, but this year could prove a turning point with multiple trial updates scheduled.

#### Immutep's busy slate

Immutep has been running two advanced trials off its own bat, but is also collaborating with multiple big-name pharma partners: Novartis, Glaxosmithkline, Merck Inc of the US, Merck of Germany, Pfizer and China's EOC Pharma (an arm of Eddingpharm).

Immutep's lead product is IMP321, also known as eftilagimod alpha (or efti to friends).

The company has four LAG-3 based product candidates, three of them in clinical development.

The most advanced trial, the active immunotherapy with paclitaxel, or Aipac, is in phase IIb for evaluating IMP321 in metastatic breast cancer. The trial is part way through patient recruitment and is expected to report progression-free survival data this calendar year.

The two active immune-therapeutics in melanoma, or Tacti-mel, study is a phase I trial evaluating IMP321 in melanoma patients. The trial was expanded in November 2017 after encouraging interim results, supported by further positive data.

In a new tie-up with Merck Inc, the company is testing IMP321 as a combination therapy with Merck's Keytruda, for a number of solid tumors.

This phase IIb trial kicked off in early 2019.

Following a successful investigational new drug application with the US Food and Drug Administration, this trial will include US sites - a key precursor to any eventual US approval.

Meanwhile, Immutep has entered separate trial collaborations with Pfizer and Merck Germany - a separate entity to Merck Inc - in relation to a Tacti-002 trial.

This alliance will test how well the therapy works on patients with advanced solid malignancies, when combined with the existing immunotherapy drug avelumab.

To round out Immutep's repertoire - or totally confuse things - Immutep has existing LAG-3 related partnerships with Glaxosmithkline, Eddingpharm and Novartis.

Targets include metastatic breast cancer, melanomas, small cell lung cancer and head and neck and shoulder cancer.

Meanwhile, Novartis has carried out five out-licenced trials, covering 1,000 patients across indications including blood cancer, triple negative breast cancer, melanomas and solid tumors.

Management has been racking up its frequent flyer points, having presented Tacti-mel data at the World Immunotherapy Conference in San Diego, while also showcasing IMP761 data at the European Crohn's and Colitis Organisation's pow-wow in Copenhagen.

What happens on the trip doesn't necessarily stay on the trip: next Wednesday, Mr Voigt will update the market about what the company told the boffins about Tacti-mel.

#### Don't' forget about immune suppression

Mr Voigt says the overlooked aspect of the checkpoint mechanism of action is suppressing, rather than stimulating, the immune system to treat conditions such as rheumatoid arthritis, irritable bowel disease and multiple sclerosis.

"With cancer you want the immune system to be active, but with auto-immune diseases you want to modify it," he says.

With IMP321, Glaxosmithkline is carrying out preclinical programs for ulcerative colitis and a phase I program for psoriasis.

With ulcerative colitis, Glaxosmithkline is working towards a clinical proof of concept study in 2020.

A second program, IMP761 is in preclinical development. "The good news is we have product candidates in auto-immune and we will talk more about autoimmune diseases in future," Mr Voigt says.

#### Finances and performance

Immutep is sitting on \$26 million of cash following a \$13.16 million placement and share purchase plan in March 2018, which attracted the support of notables such as Australian Ethical and former chair Lucy Turnbull (Ms Turnbull resigned from the board in November 2017, but if she did it to help hubbie Malcolm's political career, she needn't have bothered).

In December 2018, the company raised a further \$5.2 million on the Nasdaq. The company says the cash balance will satiate its needs until 2020, although the forecast current (March) quarter outflows of \$7.85 million implies the company is burning funds at a decent clip.

Immutep listed on the Nasdaq in April 2012, which in hindsight was too early in the company's evolution.

While the company certainly didn't win the share rating it expected, the Nasdaq foray was not all in vain because US investors now account for 33 percent of the register, compared with five percent previously.

From a 12-month low of 2.2 cents in February 2018, Immutep shares peaked at 5.6 cents in October 2018.

#### Dr Boreham's diagnosis:

The strategy of choosing a single product for a single target has gone awry in recent years, with Innate Therapeutics and Factor Therapeutics coming a cropper in their programs for multiple sclerosis and wound healing, respectively.

While many of Immutep's programs are early stage and/or subject to the whims of the big pharma partners, Immutep can't similarly be accused of putting all its eggs in one basket.

To mangle metaphors, it has multiple shots at popping one of these eggs through the goals.

By ascribing a modest market valuation of \$100 million, Immutep investors are waiting for the chickens to come home to roost.

Bear in mind the company's been around for a while, having listed on the ASX in July 2001.

This year investors can expect updates about Tacti-mel (final data from the 24-patient trial) and the Tacti-002 program, as well as first progression-free survival data from the Aipac trial.

The company also refers to "potential milestone payments from clinical partners as trials progress".

Ultimately Immutep's endgame involves partnering, partnering and partnering: more licencing deals to fund the pointy phase III stuff or perhaps an outright transaction that sees Immutep go the way of erstwhile ASX immunotherapy play Viralytics (taken over by Merck Inc for \$502 million).

"But strategically it's important we have the data to form the basis of a transaction," Mr Voigt says. "We are working on a lot of things."

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. If he's misunderstood any of the science, he claims immunity.