



Biotech Daily

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Dr Boreham's Crucible: Haemokinesis

By **TIM BOREHAM**

Shares on issue (pre attempted IPO): 62,390,700

Implied valuation: \$77.4 million (based on the 20 cents a new share offer price and the issue of shares for convertible notes and loans)

Chief executive officer and founder: Jim Manolios

Board: Lou Panaccio (chair), Mr Manolios, Dr Alexander Abrahams, Debbie Ormsby, Michael Ohanessian

Financials*(half year to December 31, 2021): revenue \$2.28 million, loss of \$3.63 million, cash of \$3.12 million

* As per float prospectus

Major shareholders: Jim Manolios and related entities 49.87%, Alex Abrahams and related entities 22%

Usually, the most commercially successful new medical products are backed by a real and apparent need, which is the case with this blood diagnostics outfit.

In short, Haemokinesis is tackling the daily problem faced by hospital emergency departments, in which the only acceptable blood in the first instance is O-negative.

When a needy patient is wheeled in, he or she must be transfused only with the O-negative claret until their blood type is determined. To do otherwise is akin to putting diesel into a petrol-driven vehicle and can have fatal results.

To determine which one of eight blood types the patient belongs to, a sample has to go to the hospital lab and a result takes about an hour to determine.

Haemokinesis's assays reduce this process to minutes, which means the patient can be loaded up with the right juice in the first place.

The gel-based tests are an improvement on the technique used for three decades, which involved introducing the sample to columns of viscous gel on a plastic card and subjecting it to a centrifuge process.

Founder and CEO Jim Manolios notes that only two percent of people have O- negative blood – which makes them valuable donors indeed.

“Routinely the big emergency centres will run out of O-neg on a big Saturday night, especially if there’s been a multi car collision,” he says.

Try try again

The Melbourne-based Haemokinesis last month sought to raise \$17 million ahead of an ASX listing which was scheduled for April 8.

“Unfortunately, due to the worst market in 25 years we had to withdrawal the IPO,” Mr Manolios says. “Haemokinesis is still an unlisted public company and we are seeking alternative investment.”

Haemokinesis also tried to list in early 2021.

Undeterred, the company reports growing sales as Covid recedes and hospitals get back to normal.

“There have been no tenders let for two years and thus there is a strong pipeline of sales,” Mr Manolios says.

About Haemokinesis

Haemokinesis was formed with the remit of creating new diagnostic platforms, initially in immune-haematology (identifying human blood groups and associated tests) and with specific emergency medicine applications.

But the company's products also cover routine blood group tests, mass laboratory testing and, of course, donor pre-screening at blood banks. The bench-top products avoid lab flow bottlenecks and reduce costs.

The company already has a number of devices with European (CE mark) and Australian Therapeutics Goods Administration approval, with a “defined path” to US Food and Drug Administration (FDA) assent via proposed clinical trials.

The key approved products are Status 1 and Stargel 10 blood group tests for emergency department use and the higher volume Eclipse and Gemini for hospital laboratories and blood donation centres, respectively.

But management sees broader potential with a product called Glif, as in Group Legible Immuno-haematology Format (Glif).

Developed in conjunction with Monash University, Glif is the point-of-care diagnostic platform. Like a Covid rapid antigen test (RAT), it can be used and interpreted by untrained people.

Haemokinesis has facilities in Melbourne, Switzerland and the US and sells in 56 countries via 24 distributors.

Success and setbacks

Haemokinesis was founded by Mr Manolios, who previously co-founded immune-haematology play Diamed Australia, in 2011.

Mr Manolios eventually sold out to the Barcelona-based Grifols SA, but not before building a 3,700 square metre manufacturing plant at Hallam, in eastern Melbourne. This facility remains the cornerstone of the company's operations.

"I was acutely aware of the gaps in the product ranges and set about fulfilling this unmet need," Mr Manolios says.

"One shortcoming was that there wasn't a way to do blood bank testing outside of the lab."

In 2018 the company acquired the Swiss outfit Day Medical, which marketed a cardless gel assay called Daymate-S in Europe (the product is still sold by Haemokinesis).

Sadly, Day Medical did not survive the pandemic and was put into administration in May 2020. On June 30, 2020 Haemokinesis wrote off a \$15.05 million loan to - and an \$11.2 million investment in - Day Medical.

Haemokinesis is chaired by Lou Panaccio, formerly the chair of Genera Biosystems CEO of Melbourne Pathology and Monash IVF. He currently is on the board of Sonic Healthcare, Avita Health and Rhythm Biosciences.

Director Michael Ohanessian was the former head of financial services platform Praemium and also helmed Vision Systems and Genetic Technologies. He is also on the board of Bluechiip.

Fellow board member and major shareholder Dr Alex Abrahams founded the ASX-listed dental chain Pacific Smiles, so there's no excuse for directors to have dodgy molars (or not to know their blood group).

Director Debbie Ormsby is the former local head of Meda Pharmaceuticals.

Glif in a jiff

The world's only self-interpreting, point-of-care-test, Glif is being developed in alliance with Monash University in an effort dubbed Project Sahara.

Why the desert allusion?

"I can be sitting in middle of the Sahara with no water or electricity and [the test] would still provide a safe result," Mr Manolios says.

Glif is based on a bio-active paper that reacts with the blood sample and this indicates the patient's blood group (and the presence of certain antigens) within one minute. Think of a Covid RAT or pregnancy test, but with a pinprick blood sample rather than saliva or wee.

Glif is yet to be approved anywhere, but in the US it's being sold on an on-demand basis to the Arizona headquartered the blood collection mob Vitalant, which collects 1.8 million donations a year across 120 centres.

These allowable sales are for internal screening purposes only.

Haemokinesis is eyeing potential uses for mass trauma, pre-transfusion bedside testing, general practitioner testing, in hospital laboratories and military uses. Of course, some people might be simply curious to find out their own blood type in the comfort of their own home.

Haemokinesis retains a research and development program with Monash University to develop other immune-haematology applications.

One potential use is to enable first responders to measure fibrinogen, the clotting factor which accounts for about 80 percent of a scab. If the patient is deficient, fibrinogen can be administered in situ rather than at the hospital, by which time the patient may have bled to death.

"We have been in discussion with the New South Wales Ambulance Service, they want to be the first to trial it later this year and hopefully we will have it on market by the end of 2023," Mr Manolios says.

The Glif card could also be used for infectious diseases - including Covid - and to assess whether a pregnant woman needs a top-up of anti-D immunoglobulin to prevent Rhesus disease.

Finances and performance

Haemokinesis generated \$3.9 million in the (pandemic-affected) year to June 30, 2021, including upfront hardware and long-tail consumables sales.

The consumables include reagents, diluents and antisera (a blood serum containing antibodies against specific antigens).

The hardware typically is sold with an associated consumables and support services contract.

Mr Manolios says the bench-top sized instruments cost about \$200,000.

But the company expects that for every one device sold, the client signs up for \$200,000 in consumables every year for the next five years.

Depending on volumes, the devices are often sold on a rental, or subsidized, model.

At last count, Haemokinesis had an installed base of 130 diagnostics systems.

The company cites a gross margin of 45 percent, but this is projected to rise to 80 percent when the Hallam facility is fully automated and working at scale.

The company is recording cash flows of \$500,000 to \$550,000 a month, but expects to reach cash flow break-even in the next 12 months.

Management also budgeted revenue of \$4 million for the year to June 30 2022 and this target looked like being achieved some months earlier.

Dr Boreham's diagnosis:

The shelved IPO does not appear to reflect Haemokinesis's fortunes, with the company reporting a \$40 million pipeline of tenders.

"Given the pent-up demand after Covid, I don't see that slowing down," Mr Manolios says.

"We were twiddling our thumbs for two years and now it's gone crazy, one tender after the other and we're training people constantly."

According to the now defunct prospectus, the blood grouping market is estimated to grow from \$US2.1 billion to \$US3.4 billion by 2028, a compound annual growth rate of 6.3 percent.

But the point of care treatment market - which Haemokinesis seeks to enter with Glif - is expected to be worth \$US22.7 billion by 2025.

Having spent \$70 million to get to this point, Haemokinesis will keep ahead of medical device giants such as Abbot, Bio-Ra Laboratories and Grifols, which already compete in the traditional laboratory and hospital sectors.

The company says: "Haemokinesis does not believe there are low-cost disposable paper-based tests commercially available that are focused on the indications of the Glif platform [and] targeting or providing the convenience of self-interpreting technologies."

Ahead of the pulled IPO, Mr Manolios described the vaunted \$77 million market cap as the bargain of the century.

“If we were in the US, we would be valued at \$US300 million.”

For the time being, investors have decided the company is not such a steal, at least on the terms offered.

But keep the prospectus in the bottom drawer for when the market’s risk appetite returns - as it no doubt will.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a relevant qualification of any sort. He thinks his blood group is O but he’s not positive.