Biotech Daily

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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: Argenica Therapeutics

By TIM BOREHAM

ASX code: AGN

Share price: 21.5 cents

Market cap: $15.7 million

Shares on issue: 73,172,250 (27,275,752 in ASX escrow)

Chief executive: Dr Liz Dallimore

Board: Geoff Pocock (chair), Dr Samantha South, Liddy McCall, Terry Budge

Finances (December 2020 first half): revenue nil, other income $296,147, net profit $65,243, cash of about $7 million (post IPO)

Identifiable major holders: Oofy Prosser (Drones Family) 5.98%, University of Western Australia 5.4%, Perron Institute 4.7%, Shane Michael Colley (Fiery King Investments) 2.73%, Shane Hoecock Wee (Wee Family Account) 2.45%

We've all heard the maxim that 'time is money', but in the case of stroke victims 'time is brain'.

From the moment of the dreaded incident, the clock is ticking on getting the patient to a suitably equipped hospital ASAP because millions of brain cells around the clot or rupture will be dying every minute.

According to one scary stat, the patient's brain ages 3.6 years for every hour of delayed treatment.

While 15 million people suffer a stroke annually, five million of them fatally, there's no effective treatment for front-line responders (usually paramedics) to administer.

Victims of the most common ischaemic strokes are usually delivered anti-clotting medication, but this can only be administered up to four hours after the event. And the medicos need to be sure that the stroke is ischaemic (a clot) rather than haemorrhagic, or else the treatment could expedite blood loss resulting from the latter.

Fresh from its ASX listing on June 11, Argenica is seeking to rectify this gaping treatment void with an easily-administered drug to prevent cell death in the first instance.

"Currently there are NO marketed, safe early intervention therapies capable of protecting the brain from damage following stroke," the company says (with the company's emphasis).

Argenica chief executive Liz Dallimore says if a stroke drug is delivered by first responders, it's crucial the agent doesn't exacerbate bleeding in haemorrhagic stroke victims (85 percent of strokes are ischaemic).

"Also, clot drugs can only be delivered about four hours post-stroke so we envisage our drug will increase that therapeutic window for those drugs as well."

Don't cry for me, Argenica

Argenica is based on research carried out by the University of Western Australia (UWA) and the Perron Neuroscience Institute. This effort was headed up by the UWA's Prof Bruno Meloni and Prof Neville Knuckey, head of stroke research at Perron.

Argenica listed on June 11 after raising $7 million at 20 cents per share.

Argenica's lead (ok, only) candidate is ARG-007, a cationic arginine-rich peptide (CARP).

Not to be confused with those the British fought on the Falkland Islands, arginines are amino acids derived from one's diet and essential for producing proteins.

We won't CARP on about it, but the lab-based research examined a number of arginine peptides as neuroprotective agents, with in-vitro trials establishing that ARG-007 (then R18) hit the sweet spot.

"They took R18 through a number of preclinical studies, looking at both [toxicity] in-vitro and then using stroke models [of the middle cerebral artery]," Dr Dallimore says.

The key message was that R18 reduced brain tissue death by 30 percent within the first 24 hours and held these gains 28 days later.

Dr Dallimore started out in stroke research at the Australian Neuromuscular Research Institute, now the Perron Institute.

After completing a Ph D in neuroplasticity jointly at the UWA and at Oxford, Dr Dallimore picked up an MBA from the Australian Graduate School of Management. She has held senior management consulting with gigs at Pricewaterhousecoopers, KPMG and Ernst & Young.

“I have a good combination of understanding the neuroscience as well as having the commercial background,” she says.

Thank heaven for ARG-007

Dr Dallimore says when a vessel is blocked, the reduction in the blood flow affects the neurons around the vessels - with all kinds of nasty flow-on effects.

One is where there’s an influx of calcium into the cell, which activates cell death pathways.

“You see a cascade of things happening within those neurons,” she says.

“We are able to block oxidative stress and calcium influx and ... reduce inflammation.

“It [ARG-007] works in a number of ways down the cell death pathways, which is really important for neuroprotection.”

ARG-007 also appears to overcome the blood-brain-barrier, the body’s natural defence against foreign agents.

Having done in-vitro modelling and primate studies, the company is finalizing the toxicology and pharmacokinetic data needed for a phase I trial.

The company aims to recruit 40 healthy volunteers by the end of 2021. The study will be carried out by Perth’s Linear Clinical Research.

The company is also seeking ethics approval for a phase II study, divided into two parts.

Part A will be based on patients diagnosed with large vessel occlusions, having been admitted (quickly) to hospital in a metropolitan area.

Part B will focus on first responder delivery and the company is mulling how to establish that trial.

An obvious issue is that patients are not exactly in a position to give consent and may not even be conscious.

While consent rules vary from state to state, the next of kin can usually give the nod and ultimately the paramedic can administer the drug without consent if the situation is dire enough (which it usually is).

Argenica's rivals at home...

Argenica IS the only pure-play ASX biotech looking at stroke neuroprotection, but others are nibbling away at the periphery.

Nyrada Inc is focused on cholesterol-lowering drugs but has a clear interest in traumatic brain injury and strokes. The company claims to have the “first ever treatment to prevent brain damage following stroke and head trauma” with its so-called PCSK9 inhibitor.

We’ve regularly covered the success story Clinuvel, which has regulatory approval for its drug afamelanotide for rare skin orders.

But the company is also evaluating the effect of the drug in a six-patient, phase II stroke study.

The first patient was recently enrolled, having suffered an acute arterial ischaemic stroke. The immediate aim is to “bring back the patient’s neurological and muscular functions by improving the blood flow to the affected part of the brain”.

Argenica also shares some DNA with Emvision (EMV) which is working on an early stroke detection device for use in ambulances.

Not accidently, WA businessman Geoff Pocock is chair of Argenica and a director of Emvision. He is also an executive director of bio-resorbable implant mob Osteopore and founded the listed Hazer, which has nothing to do with college frat house rituals but is developing hydrogen technologies.

Emma Waldron is chief financial officer and company secretary for both Emvision and Argenica.

Another interesting name on the Argenica board by the way is Terry Budge, the former chief executive of Bankwest (now owned by the Commonwealth Bank).

Meanwhile, ASX listed compatriot Micro-X is developing a portable stroke scanner, among other things.

And away ...

Globally, a number of other drug developers are pursuing the neuroprotective path, but not with Argenica’s 'plurifunctional’ approach.

Argenica is following the lead of the more advanced private Canadian outfit Nono, which has another arginine peptide called NA-1.

Dr Dallimore says being a fast follower is not such a bad thing, as Argenica can observe Nono’s phase III trial protocol with first responders.

“We have managed to see how they have navigated ethics and patient consent issues,” she says.

“Interestingly, a couple of members of our clinical advisory committee are running those trials in Australia for that company, so we have quite a bit of inside knowledge about how they are setting up those trials.”

She views NA-1 as the closest drug to Argenica’s, as it’s also a peptide (albeit more complex).

Others are pursing treatments based on anti-oxidants and stem cell therapies.

Finances and performance

Argenica shares enjoyed a solid debut ending the first day at 26 cents (a 30 percent premium) but have since drifted back to the listing price.

The 35 million shares issued in the initial public offer (IPO) took total shares on issue to a tad over 73 million, ascribing a $14.6 million market capitalization.

Of these shares, 31 percent are escrowed for 12 months with a further six percent locked up for 12 months.

These shares are in the hands of pre-IPO investors who bought-in at either eight cents or 12.5 cents and presumably might want to cash in when the restriction is lifted.

Most of the funds raised will be earmarked for pre-clinical work.

“We have money put aside to look at other indications such as traumatic brain injury and perinatal hypoxia ischaemia,” Dr Dallimore says.

Perinatal hypoxia ischaemia is when the brain does not receive enough oxygen before or after childbirth, with profound effects on mother and child.

Dr Boreham’s diagnosis:

Argenica has been in discussions with its well-credentialed medical advisory committee on the potential safety of ARG-007 for migraines and epilepsy.

The stroke market alone is expected to be worth some $US180 billion a year by 2030, even with the paucity of current treatments.

Another scary stat is that there’s a 25 percent chance of adults over the age of 26 years having a stroke.

At the risk of being Captain Obvious, your columnist opines: Argenica has a long way to go on its quest, which is why it's valued at a mere enterprise value (market cap less cash) of a mere $7 million or so.

"We have seven years of data supporting this particular arginine, we are pretty confident it will at least be safe," Dr Dallimore says.

Safe is a good start, but establishing efficacy in humans will entail a 'boring but important' stage in which not much will happen from an investor perspective.

Dr Dallimore insists the Argenica story has legs and - as is often the case - it's the patient investors who are likely to benefit.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. By a stroke of good fortune, he remains gainfully employed, nonetheless.