



Biotech Daily

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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: Kazia Therapeutics

By TIM BOREHAM

ASX code: KZA; **Nasdaq code:** KZIA

Share price: 69 cents; **Shares on issue:** 48,409,621; **Market cap:** \$33.4 million

Chief executive officer: Dr James Garner

Board: Iain Ross (chairman), Bryce Carmine, Steven Coffey, Dr James Garner

Financials (December half): revenue \$66,227 (down 54%), net profit \$424,779 * (previous loss \$4.182 million), cash \$6.641 million (down 54%)

* Profit reflects \$7.98 million gain on legal settlement with Noxopharm, \$165,000 by way of cash and the remainder by way of Noxopharm shares and options.

Major holders: HSBC Custody Nominees 36%**, Hishenk (Michael Abolakian) 11.2%, D&G Brown Investments 1.87%, Kilinwata Investments 1.83%, Dr Andrew Heaton 0.94%, EI Coronado Holdings 0.94%

** This holding consists of the Nasdaq American Depository Receipts.

All diseases need a poster child to raise awareness - and research funding - and in the case of glioblastoma it's former US presidential Republican candidate and war hero John McCain.

In a bipartisan vein, the common and aggressive form of brain cancer also killed Ted Kennedy and Beau Biden, son of former Democrat Veep Joe Biden.

They're not alone.

In the US, 12,500 new patients are diagnosed annually and about 1,600 here. Untreated, sufferers have an average four-month life expectancy, rising to 12 to 15 months with treatment.

The good news is that there is an existing standard of care drug, called temozolomide. Or at least good news for some because the drug (administered after surgery or radiotherapy) is effective in only one-third of cases.

When Crucible was at school that was a big fat fail. Now, of course, it's a participation certificate.

Formerly Novogen, Kazia is taking a new approach with a brain cancer therapeutic called GDC-0084, which Novogen bought from Glioblast Pty Ltd in October 2016.

But Glioblast licenced the compound from Roche's Genentech. And who is Glioblast? I'm glad you asked. It's a very small biotech world. The Sydney company was owned by ... Viralytics chairman Paul Hopper and Genentech's former program leader for GDC-0084, Leslie Chong, now Imugene's chief executive officer.

Enough history

The molecule inhibits a signalling pathway called P13K, which is expressed in 85 percent to 90 percent of glioblastoma tumours.

Kazia chief Dr James Garner says there's been little progress in treating brain cancers for the last 15 to 20 years. One reason is that other drugs (such as for breast and lung cancer) have been re-purposed for glioblastoma.

"GDC-0084 was designed specifically as a treatment for brain cancer so it has been carefully optimised in the disease area," Dr Garner says.

Silver medal for longevity

Kazia is based on the shell of Novogen, the second oldest ASX-listed biotech (Circadian, now Ophea, takes out the gold medal).

Also Nasdaq listed, Novogen changed its name to Kazia in November last year, which could mean "cinnamon tree" in Hebrew or "commands peace" in Polish, but the company was simply looking for a name that wasn't Novogen and settled for one that sounded like a 1980s keyboard.

Founded by Dr Graham Kelly, Novogen listed on the ASX in 1994 and then on the Nasdaq in 1998.

In its tortured history Novogen had many guises, including a developer of veterinary products and women's natural health supplements, not to mention red clover leaf derivatives for cancer.

Dr Kelly left the company in 2005 after a strategic difference of opinion with the board, only to return as CEO in 2012.

During his absence, Dr Kelly was a regular critic of Novogen on his personal website - which made for interesting reading to say the least.

He departed (again) in 2015 to found Noxopharm.

Novogen's board recruited Dr Garner in 2016 to take the company along a more commercially-focused path, rather than dabbling in early stage stuff that never went anywhere.

Novogen then engaged in a legal spat with Noxopharm over intellectual property.

In a settlement late last year, Novogen/Kazia agreed to renounce any rights to Noxopharm's intellectual property, in return for Noxopharm stock and options worth \$7.81m and \$165,000 of cash.

Kazia retains a second program for ovarian cancer, Cantrixil, a third generation benzopyran molecule that has shown activity against cancer stem cells.

Other preclinical assets were hived off to Heaton-Brown Life Sciences, founded by former Novogen CEO Dr Andrew Heaton and erstwhile chief scientific officer Dr David Brown.

Kazia retains 10 percent equity in Heaton-Brown, plus milestone payment entitlements.

What Kazia does

The GDC-0084 program came to Novogen via a deal with Roche's drug development arm Genentech in late 2016.

The global licencing deal involved Novogen buying the program for \$US5 million up front, plus royalties in line with industry standards and a performance payment component "linked to regulatory and commercial outcomes."

"The Genentech transaction bought a technology more recognizable to clinicians and investors," Dr Garner says.

"It was something easier to talk about."

So if the prospects were so good, why did Genentech give it up?

"Genentech produces more drugs than they have the resources to take forward," he says. "It's not uncommon for a drug to go [to] three or four owners before it becomes a product."

GDC-0084 tackles glioblastoma multiforme, which sounds like a vitamin tablet but is the most common form of glioblastoma accounting for 15 percent of all brain cancers.

Kazia last month won 'orphan drug' status from the US Food and Drug Administration.

A 47-patient, phase I trial run by Genentech showed safety and some signs of efficacy.

Kazia is now recruiting for a 228-patient phase II trial, initially at the University of Oklahoma's Stephenson Cancer Centre but then at other US centres.

While most clinical trials enrol difficult-to-treat patients that have failed other treatments, this trial gives the opportunity to target a first-line therapy compared with the (ineffective) temozolomide.

The chosen primary endpoint of progression-free survival rather than overall survival should enable quicker data readouts.

Kazia is targeting full recruitment in 12 to 18 months, with first data 12 months thereafter.

Dr Garner says the trial has been designed in view of accelerated approval, "but there are no guarantees".

Prospects and financials

While a rare cancer, glioblastoma was a \$US1 billion a year market for Merck before its temozolomide drug Temodar went off-patent.

Dr Garner notes that three drugs support a form of lung cancer suffered by only two per cent of lung cancer patients.

"Increasingly we are seeing cancer as a group of many smaller diseases," he says.

Novogen shares have traded as high as \$13.70 (in May 2008) and as low as 33 cents (in December last year).

In its Kazia reincarnation the stock has more than doubled.

Including cash, receivables and pending Federal Research and Development Tax Incentives, the company has \$14.8 million of current assets - enough to fund the trial and other costs until the end of 2019.

"But we will need some additional funding to see us through to completion of the study," Dr Garner says.

Flattering comparisons

Globally, other biotechs in the P13K field are attracting juicy valuations.

The Nasdaq listed, phase I Infinity Pharmaceuticals is valued at \$US130 million. TG Therapeutics, which also graces the Nasdaq and is in phase II/III stage, is worth a cool \$US1.2 billion.

Locally, Kazia shares DNA with the preclinical stage Patrys (ASX code: PAB), which is also targeting glioblastomas.

Attentive readers will know we covered the stock a couple of weeks back.

Dr Boreham's diagnosis:

Currently, two P13K inhibitors have been approved for blood cancers: Bayer's Aliqopa (copanlisib) and Gilead's Zydrelig (idelalisib).

So the science is accepted, generally speaking.

Kazia doesn't look like the sort of play for short-term investors, given we'll have to wait some time for the GDC-0084 clinical results.

However initial data from the phase I Cantrixil program is expected in the current quarter.

With a compact \$35 million market cap backed by \$6 million of cash Kazia, like peace, deserves a chance.

As chairman Iain Ross told the company's AGM last year: "We feel that (the company) deserves to be judged on its own merits and not on the strengths of weaknesses of the distant past".

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. But he has won many participation certificates.