



Biotech Daily

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Daily news on ASX-listed biotechnology companies

Dr Boreham's Crucible: Telix Pharmaceuticals

By TIM BOREHAM

ASX Code: TLX

Market cap: \$148.1 million

Share price: 75 cents; **Shares on issue:** 197,437,500 (107,360,578 in ASX escrow)

Chief executive officer: Dr Christian Behrenbruch

Board: Kevin McCann (chairman), Dr Behrenbruch, Dr Andreas Kluge (executive director, chief medical officer, co-founder), Dr Mark Nelson, Oliver Buck

Financials: Cash of \$52.4 million (the company was incorporated in January 2017 and has no trading history).

Major shareholders: Dr Behrenbruch 12.5 percent (pre listing 20.5 percent), Dr Kluge 12.5 percent (20.5 percent), Fidelity International (10%), Oncidium Foundation * (3.6%), scientific advisory board members (2.9%), other board members (1.3%)

* Charitable foundation issued Telix shares for nominal cash consideration at the time of the Telix incorporation.

As Australia overwhelmingly backed marriage equality on November 15, investors said Yes to Telix, backed by a list of investors GetUp! would envy including CVC, Acorn Capital and Allan Moss, the targeted radio-pharmaceutical play has emphatically made its debut and at the end of Wednesday's session holders were sitting on a handy 18.5 percent gain, enough for as many frocks and cakes as you could want.

The much-anticipated offer, at 65 cents apiece, raised \$50 million. Believe it or not, Telix is the biggest drug development (as opposed to device) IPO since CSL graced the boards in 1994 and what a stinker that (now) ASX top-10 stock turned out to be.

“It’s been a long journey. We have been on the road for four months,” says CEO Dr Chris Behrenbruch.

In January, Telix raised \$8.5 million in a pre-initial public offer (IPO) round, bringing on holders including Moss, CVC, Alium Capital Management and Monash Investors.

(By the way, Telix chairman Kevin McCann formerly chaired Macquarie Group – then called Macquarie Bank - so there’s more than one silver doughnut link with this one).

But will the cancer therapeutics (and diagnostics) developer make it to the final furlong? There are no dead certs in cancer drug development and the field has its fair share of failures.

A more targeted approach

A relatively new discipline, molecularly-targeted radiation (MTR) allows radioactive isotopes to be delivered via Telix’s patented molecules in a selective way, so that they only reach the tumors in question.

In the most layperson of terms, these agents attach to biological targets expressed by the cancers and that’s how the radiation can be delivered without blasting away at healthy cells as well.

Alternatively, MTR can be used as an enhanced diagnostic tool based on existing hospital imaging equipment.

A current problem with imaging is that it uses the unstable gas iodine, which creates “noisy” images and is poor at detecting smaller tumors.

Telix’s lead molecule, the antibody TLX-250 relates to renal (kidney) cancer. The others are the antibody TLX-591 for prostate cancer and the small molecule TLX-101 for glioblastoma, or brain cancer.

These programs were selected on the basis of demonstrated significant clinical efficacy at trials and the ability to be viable products (for instance, they must be able to be manufactured at scale).

New biotech kid on the block

The youngest of corporate pups, Telix was founded in November 2015 by Dr Behrenbruch and Dr Andreas Kluge and incorporated in November 2015.

Dr Kluge founded the Dresden-based radiopharmaceutical outfit Therapeia, which owned the background technology to TLX-101.

Telix acquired Therapeia in October for a nominal cash sum and the assumption of about \$1 million of debt.

Dr Behrenbruch is best known as author of the acerbic biotech sector critique ASX Long Tail – at least until he received one too many lawyers' letters (and at least one death threat) from irate targets and put away his quill.

But he also has experience on the 'other side' as executive director (now non-executive director) of wound-care play Factor Therapeutics.

Telix is buoyed by other MTR successes such as Bayer's Xofigo for metastatic prostate cancer and Advanced Accelerator Applications Lutathera for neuroendocrine tumors.

"These products have been widely accepted by the oncology community and are now part of the standard of care in many countries," the company says.

Progress to date

Telix's lead program TLX-250 has already been subject to phase III imaging trials and an "academic" phase II treatment trial in Europe.

Telix also has a special protocol assessment from the US Food and Drug Administration to carry out a "confirmatory" phase III trial of TLX-250 for imaging.

The antibody TLX-591 is aimed at the well-known prostate cancer target prostate-specific membrane antigen, or PSMA. A phase-two imaging study was carried out in 2016.

The small molecule TLX-101 targets brain cancer. Once again, it has been confirmed as a successful imaging tool, with a small (five patient) German study also indicating "considerable therapeutic potential."

Neither TLX-591 nor TLX-101 will be developed for imaging because there are already effective tools available.

What's next?

A TLX-250 phase III trial is expected to start in late 2017 and with Christmas looming that must mean "any day now".

If successful, management expects marketing approval within 24 months – and that's from October's prospectus date and not from now.

A phase II therapeutic trial for renal cancer is scheduled to start in mid-2018, followed by a prostate therapeutic study in late 2018.

TLX-101 doesn't miss out either, with a phase I/II dose-escalation study of relapsed clinical patients expected to take place at an unspecified date across three European centres.

Multiple partners

Telix has a partnership with German publicly-listed biotech Willex AG, which developed TLX-250 before divesting it after a failed phase III trial.

The key difference is that the Willex trial was a non-radioactive antibody therapy program, which is like providing non-alcoholic beer to schoolies and expecting a drunken orgy.

“It was an incredibly ambitious program to run with a high chance of failure,” Dr Behrenbruch says.

Telix also works closely with UK biopharmaceutical provider Abzena PLC, which holds patents pertaining to TLX-591.

Then there’s a “collaborative agreement” with Atlab Pharma and the Atlab Option.

Atlab owns clinical data and manufacturing intellectual property over TLX-591 (the prostate cancer program).

Telix has an option to acquire this intellectual property for \$US10 million in cash and/or shares by the end of calendar 2017. Or if the festive torpor proves too much, it can extend by six months by paying \$US200,000.

While it believes Telix can develop TLX-591 without the data and patent rights in question, development could be delayed for six months.

Dr Behrenbruch says Telix is likely to exercise the option, but pay in scrip only. After all, none of the \$50 million raised was earmarked for this purpose.

Financials

Telix opines that the funds raised should be enough for it to execute the intended programs, but we all know that in biotech enough cash is never enough in the long run.

While TLX-591 is also not the lead program, management has earmarked more for that effort (\$21.5 million) than the flagship renal program.

We guess that as TLX-250 is more advanced, there’s less work to do.

The risk factors section of a prospectus – a.k.a. the cup of truth – always makes for interesting reading.

In the case of Telix one threat is disrupted supplies of the requisite isotopes, which unsurprisingly are made under highly-regulated conditions.

Because the isotopes have a half-life of less than a week, they need to be supplied on a just-in-time basis.

Once upon a time we had a quaint thing called a car manufacturing industry which operated on the same just-in-time basis. But let's hope the similarities end there.

Dr Boreham's diagnosis:

Your columnist dare not guess the success rate of an ASX-listed drug developer (that is, one that has got a drug to market and made a few beans out of it).

Five percent? One percent?

For investors, such plays are usually more profitable along the journey rather than at the destination.

Having said that, who is your humble Crucible to doubt the wisdom of the numerous moneyed backers?

As for Dr Behrenbruch, the driving force behind this one: "I'm not god's gift to bioscience but I generally know what I'm doing," he says.

With such a rock star line-up of deep pockets, Telix won't be starved of funds if its trials deliver the goods.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. He has not received any death threats to date so must not be trying hard enough.