Biotech Daily

Friday August 10, 2018

Daily news on ASX-listed biotechnology companies

*** ASX, BIOTECH DOWN: REVA UP 8%; AIRXPANDERS DOWN 12%**

*** DR BOREHAM'S CRUCIBLE: DIMERIX**

*** TELIX KYZEO JV EXTENDS ENDOCYTE AGREEMENT**

*** NEUROTECH SHIPS IMPROVED MENTE AUTISM DEVICES**

*** GI DYNAMICS REQUESTS 'ENDOBARRIER FDA IDE' TRADING HALT**

*** AUSTRALIAN ETHICAL TAKES 11.5% OF CYCLOPHARM**

MARKET REPORT

The Australian stock market fell 0.31 percent on Friday August 10, 2018 with the ASX200 down 19.3 points to 6,278.4 points.

Fifteen of the Biotech Daily Top 40 stocks were up, 17 fell, seven traded unchanged and one was untraded.

Reva was the best, up two cents or eight percent to 27 cents with 22,810 shares traded.

Opthea climbed 4.4 percent; Dimerix, Factor Therapeutics, Neuren, Osprey and Volpara rose more than two percent; CSL, Mesoblast, Orthocell, Resmed and Telix were up more than one percent; with Cynata, Ellex, Genetic Signatures, Nanosonics and Sirtex up by less than one percent – Nanosonics returning to the $1 billion market cap level.

Airxpanders led the falls, down 1.2 cents or 12.4 percent to 8.5 cents with 1.7 million shares traded.

Prescient lost 8.7 percent; Optiscan retreated 7.7 percent; Immutep shed 5.3 percent; Imugene fell 4.8 percent; Actinogen, Impedimed, LBT, Pharmaxis and Universal Biosensors were down three percent or more; Bionomics, Oncosil and Pro Medicus shed more than two percent; Avita, Compumedics and Medical Developments were down more than one percent; with Clinuvel and Cochlear down by less than one percent.

DR BOREHAM'S CRUCIBLE: DIMERIX

By TIM BOREHAM

ASX code: DXB

Share price: 9.5 cents; **Shares on issue:** 158,799,437; **Market cap:** $15.1 million

Chief executive officer: Kathy Harrison

Board: Dr James Williams (chairman), Dr Sonia Poli, David Franklyn, Hugh Alsop

Financials (June quarter): revenue nil, cash outflows $1.4 million, cash balance $6.3 million, expected current quarter outflows $2.5 million

Major identifiable holders: Peter Meurs 15.2%, Yodambao Pty Ltd (Tracey Blake) 5.1%.

Every biotech needs a decent vision statement and in the case of Dimerix its lofty charter is to "positively improve human health by creating safe and effective new treatments for patients with unmet medical needs".

Throw in the pursuit of world peace and that about covers it.

But one good deed at a time: Dimerix's focus is on chronic kidney disease (CKD), which affects about 10 percent of the population (26 million folk in the US alone). Diabetic kidney disease (DKD, or diabetic nephropathy) is a common iteration of the ailment.

"This prevalence is expected to increase due to the escalating incidence of cardiovascular disease, obesity and diabetes," the company says. "CKD is a pressing medical need associated with several life-threatening complications that amplify the effects of the disease and result in significantly worse outcomes for patients."

Untreated, CKD can lead to end-stage renal disease, thus condemning patients to a lifetime of dialysis or even a kidney transplant … if available.

Existing treatments revolve around immune-suppressants and steroids, usually off-label. The drugs have toxicity issues and can be as low as 25 percent effective, so there's a clear and present need for a better treatment.

From drug testing to dodgy kidneys

Dimerix was founded in 2004 by Dr James Williams and former Macquarie Group adviser Liddy McCall, based on technology developed at the University of Western Australia.

The Williams-McCall tag team co-founded Tessitura Pty Ltd and then biotech investor Yuuwa Capital. They also co-founded Iceutica Group, a drug reformulation company bought by Iroko Pharmaceuticals of the US for a tidy sum in 2011.

Dimerix Bioscience was acquired in July 2015 by the ASX-listed Sun Biomedical, which has dabbled in ventures ranging from illicit drug testing (the testing was legal, the drugs were not), heart valve devices and asthma diagnostics.

At the time, Sun Biomedical raised $1.6 million at a lowly 0.1 cents apiece from clients of Perth advisory outfit Forrest Capital and Sun changed its name to Dimerix Limited in November 2015.

Kathy Harrison was appointed inaugural CEO in August last year, with Dr Williams moving from exec chairman to non-exec chairman.

A patent lawyer with a scientific background, with nine years as a patent attorney for Watermark and four years each at Phosphagenics and Cytopia, Ms Harrison joined Dimerix as the sole employee in 2014, tasked to take pre-clinical work into the clinic.

Since then she has overseen the launch of a phase IIa trial and built the company to six staff (three part-time, including a part-time chief medical officer).

“Science meets IP [intellectual property] meets business is what appealed to me about Dimerix,” she says.

The hands-on Ms Harrison will revert to chief operating officer, with the board hunting for a new CEO.

DMX-200 - one plus one equals much more than two

Dimerix’s lead compound DMX-200 is a combination therapy based on known drugs irbesartan (blood pressure) and propagermanium (not a popular flowering plant but an anti-inflammatory used to treat hepatitis B).

Both have well-known safety profiles, as they have each been used safely for many years. This minimizes the safety risk of DMX-200 to patients.

The gist with irbesartan is that it reduces the leakage of proteins into the urine (proteinuria) but fails to address kidney damage caused by inflammation.

By adding the anti-inflammatory drug propagermanium to irbesartan, DMX-200 aims to combat this inflammation, preserving kidney function. In the US, Dimerix has orphan drug indication for DMX-200 in relation to the rapidly progressing renal disease focal segmental glomerulo-sclerosis (FSGS).

Fundamental science

Dimerix isn’t just bunging two old drugs together under a fancy new name. The idea is that the so-called adjunct therapy achieves a synergistic effect. How?

That’s where Dimerix’s patented secret herbs and spices come into play with its Receptor-HIT (heteromer investigation technology) platform.

The technology allows identification of different pairs of receptors that interact with ligands (small molecule drugs or peptides) when bound to them.

If only one of the conniving receptors (linked to disease) is disabled, the paired one could be continuing its undesirable activity. Dimerix is zeroing in on G-protein coupled receptors, a large family of drug targets linked to a wide variety of diseases.

If it hits this G-protein G-spot, Dimerix is confident of repurposing other drugs for other receptor combinations already identified by the company.

While the company remains focused on kidney diseases, other targets are non-alcoholic steato-hepatitis (NASH or fatty liver disease) and liver inflammation!!!, ocular/otology (eye and ear) disorders, fatigue and other allergies and inflammations.

Action on clinical trials

Positive results from last year's phase IIa trial of DMX-200 on diabetic kidney disease (DKD) patients have prompted Dimerix to launch two new separate trials.

The phase IIa trial of 24 patients showed a 35.6 percent reduction in proteinuria levels, with 25 percent of patients achieving greater than 50 percent improvement.

"We got fantastic data from the diabetic cohort," Ms Harrison says. "We weren't looking for it, as it was an all-comers trial."

The company is now planning recruitment in the current quarter for two local phase IIa studies, dubbed Action, on FSGS and DKD.

The FSGS (focal segmental glomerulo-sclerosis, remember?) trial will enrol 10 patients, with the primary endpoint of safety and proteinuria reduction.

The DKD trial will enrol 40 patients, with the primary endpoint of - can we refer to our notes, Your Honour? - "change in 24-hour albumin-creatinine ratio based on identified patients in the phase IIa study".

Under a double-crossover design, all patients will receive both the active drug and a placebo at different times, with an eight week break in between. In effect, that doubles the size of the trial cohort.

The size of the prize

Give its orphan disease status, FSGS is the most appealing indication commercially and offers the fastest route to market.

In the US there are 100,000 FSGS patients and many go on to dialysis at a cost of $US80,000 to $100,000 a year. Given that, the company expects to be able to sell the drug at a premium.

If the trials proceed to phase III, Dimerix would seek a partner at that point.

In the mean-time there's anywhere between 30 million to 84 million diabetics in the US, about 40 percent with DKD.

"Because other diabetes treatments are improving they are being kept alive longer," Ms Harrison says.

"So diabetics in their 70s are facing dialysis, which is brutal for someone at that age."

According to Persistence Market Research, the US FSGS market is worth $US1 billion a year, while the DKD market is expected to be worth $US1.3 billion in the US in 2020 and $US2.9 billion globally.

Financials and performance

Dimerix has $6.3 million in the bank, enough to fund the trials to "significant inflection points".

The company raised $3.05 million from an entitlement issue launched before Christmas and then $4.5 million from a placement in January.

The rights issue fell short of expectations, but the placement exceeded the targeted $2.5 million by $1.5 million.

Dimerix shares soared after the July 2017 trial results, with the shares pushing from the 20 cents level to close to 30 cents. However, the share trajectory sadly has been downward ever since. The shares hit a record high of 32 cents in September 2016.

Dr Boreham's diagnosis:

Dimerix has been compared with Proteomics, which has a blood analysis tool to predict when people with diabetes will go on to develop CKD.

The companies both have similar market valuations and revenues; otherwise they're chalk and cheese (Crucible put Proteomics to the Bunsen burner in July last year).

In any event, Dimerix is well worth watching given the potential of the two trials to plump up the company's motley market cap. The results from both {the two trials} are due in late 2019.

Dimerix boasts an interesting largest shareholder in Peter Meurs, a former Worley Parsons executive and Fortescue Metals director who gave up these positions to assume a senior role for the Mormons (Church of the Latter-Day Saints) in Salt Lake City, Utah.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. He agrees you can change the world - but it has to want to change.

TELIX PHARMACEUTICALS

Telix says its Kyzeo Imaging joint venture has extended its agreement with Endocyte to provide prostate cancer imaging for Endocyte's phase III trial of 177Lu-PSMA-617.
Telix said that Kyzeo was a joint-venture with the Liege, Belgium-based Advanced Nuclear Medicine Ingredients (ANMI) SA.
The company said the contract amendment extended access to the 68Ga-PSMA-11 kit and technical support to specified European jurisdictions, in addition to the US.
Telix said the West Lafayette, Indiana-based Endocyte 750-patient, phase III Vision trial was a prospective, open-label, multi-centre, randomized study of 177Lu-PSMA-617 for the treatment of patients with progressive prostate specific membrane antigen (PSMA)-positive metastatic castration-resistant prostate cancer, who had received at least one novel androgen axis drug and at least one taxane regimen (BD: Jul 25, 2018).
Telix was up one cent or 1.5 percent to 69 cents.

NEUROTECH INTERNATIONAL

Neurotech says it has completed the first shipments of an improved version of its Mente Autism neuro-feedback devices.
Neurotech said that pre-orders had been received from distributors in Australia, Europe and the Middle East, with "several distribution partners in these regions … [starting] marketing and information campaigns to coincide with the release of the next batch devices".
Neurotech said that 20 additional devices would be shipped for research purposes in Italy and Middle East and reimbursement preparations had begun.
The company said its US 34-patients clinical trial results provided "important scientific evidence supporting the use of Mente Autism for children with autism spectrum disorder" and it expected to complete several multi-site studies to validate further the product in different target markets (BD: Jul 9, 2018).
Neurotech was up 1.5 cents or 10 percent to 16.5 cents.

GI DYNAMICS

GI Dynamics has requested a trading halt pending an announcement about its Endobarrier US Food and Drug Administration investigational device approval.
In 2015, GI Dynamics closed a planned 500-patient US trial, with five of the 325 enrolled patients developing bacterial liver infections (BD: Mar 6, May 6, Jul 30, 2015).
In 2017, the European Union withdrew the Endobarrier conformity certificate and in 2016 the Australian Therapeutic Goods Administration cancelled the Endobarrier approval (BD: Sep 14, Oct 24, 2016; May 18, Nov 13, 2017).
GI Dynamics has been working to resolve the regulatory issues, as well as technical issues related to the hooks that anchor the Endobarrier to the Pyloric duodenum-stomach sphincter.
Trading will resume on August 14, 2018 or on an earlier announcement.
GI Dynamics last traded at 2.5 cents.

CYCLOPHARM

Australian Ethical Investment says it has increased its substantial shareholding in Cyclopharm from 6,881,168 shares (10.08%) to 7,881,168 shares (11.46%).
Australian Ethical said it bought the 1,000,000 shares on August 8, 2018 for $901,980 or 90.2 cents a share.
Cyclopharm was unchanged at 86 cents.