Biotech Daily

Thursday April 6, 2023

Daily news on ASX-listed biotechnology companies

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MARKET REPORT

The Australian stock market fell 0.25 percent on Thursday April 6, 2023, with the ASX200 down 18.2 points to 7,219.0 points. Fifteen of the Biotech Daily Top 40 stocks were up, 12 fell, nine traded unchanged and four were untraded. All three Big Caps were up.

Imugene was the best for the second day in a row, up one cent or 7.1 percent to 15 cents, with 34.9 million shares traded. Paradigm climbed 6.1 percent; Opthea was up 5.7 percent; Antisense and Impedimed improved more than three percent; CSL and Mesoblast rose more than two percent; Cochlear, Proteomics, Starpharma and Telix were up more than one percent; with Avita, Clinuvel, Emvision, Genetic Signatures, Medical Developments, Nanosonics and Resmed up by less than one percent.

Cynata led the falls, down 3.5 cents or 13.2 percent to 23 cents, with 228,273 shares traded. Dimerix lost 8.6 percent; Volpara was down 5.3 percent; Micro-X fell 4.55 percent; Actinogen, Atomo, Next Science and Prescient shed more than two percent; Neuren and Pro Medicus were down more than one percent; with Cyclopharm and Polynovo down by less than one percent.

DR BOREHAM'S CRUCIBLE: RADIOPHARM THERANOSTICS

By TIM BOREHAM

ASX code: RAD; **NASDAQ code (proposed):** RADX

Share price: 15 cents; **Market cap:** $50.8 million

Shares on issue: 238,947,639 (100,000,000 more in ASX escrow)

Chief executive officer: Riccardo Canevari

Board: Paul Hopper (executive chair), Mr Canevari, Ian Turner, Dr Michael Baker, Hester Larkin, Dr Leila Alland

Financials (December 2022 quarter): receipts $1.55 million, cash burn $6.01 million, cash balance $24.25 million, quarters of available funding: four

Identifiable major holders: Paul Hopper 28.68% Nanomab Technology 8.6%

Can the youthful nuclear medicine house succeed where so many ASX-listed life sciences outfits have foundered?

We're not talking about the underlying science, but Radiopharm's plans to pursue a secondary listing on the 'tech-friendly' US Nasdaq exchange.

The rationale is sound enough: to make the stock more accessible to US investors who ascribe higher valuations to biotechs than Aussie punters. Supposedly.

The Nasdaq gambit might have worked for tech hero Atlassian, but ASX bio-stocks including Mesoblast, Immutep, Kazia and the former Biota didn't achieve the expected valuation uplift. Pharmaxis discontinued its Nasdaq listing in 2009, citing the unjustifiable cost.

Radiopharm founder, chair and major shareholder Paul Hopper is adamant it's the right approach. He says the company has been approached by a conga line of US bankers, brokers and fund managers, but many are unable to invest in a non-US listed company.

He adds the proposed listing won't include a fund raising.

"It will be a non-event at the start but it is really is a way of trying to raise our visibility," he says.

Perhaps the rationale is more a case of 'well, we might as well give it a go': unappreciative local investors have shaved three-quarters off the value of the company since it listed on the ASX in late 2021, at 60 cents apiece -and on listing fell to 39 cents before closing the day down 33.3 percent at 40 cents.

Of course, the biotech market has been gnarly generally, but …

Radiopharm's youthful glow

If there's a glow emanating from Radiopharm's HQ it's not because of the isotopes but on account of its youth. Radiopharm listed in late 2021, on the back of assets corralled by Mr Hopper from parties including Imperial College London, New York's Sloan Kettering Memorial Hospital and the Technical University of Munich.

Known as RAD-101, Radiopharm's most advanced program is developing an imaging tool for brain metastases.

The company reports positive results from a small phase II trial and plans to seek US Food and Drug Administration approval for a larger phase IIb/III trial.

A newly acquired program (see below) seeks to overcome patient resistance to therapies that target the prostate-specific membrane antigen (PSMA).

The company also has FDA 'orphan device' status for an imaging tool for the deadly and hard-to-detect pancreatic cancer, with the first patient in a phase I trial planned to be enrolled this month.

What's the problem?

The 'theranostics' in the company's name refers to developing both diagnostic and therapeutic radiopharmaceuticals for cancer.

The diagnostic leg involves the use of low-energy radio-isotopes to allow physicians to 'see' and measure distance in the body.

The treatment bit involves high-energy particles. The process involves attaching a radioactive isotope to a targeting agent, such as a small molecule or antibody.

The targeting molecule goes to where the tumor is located and the low-energy isotope then 'sees' the growth.

"It's like a torch," CEO Riccardo Canevari says.

But what problem is the company trying to solve?

In the case of brain cancer, the current method of positron emission tomography (PET) is limited because of the risk of inflammation and unintended cell death. Magnetic resonance imaging (MRI) is OK for detecting tumors, but no so good for ascertaining whether they are growing or shrinking over time.

Get with the program(s)

Radiopharm has programs covering the use of several different isotopes with targeting agents covering peptides, fatty acids and antibodies.

Brain cancer

Radiopharm's most advanced program, RAD-101 aims to develop an imaging tool for brain metastases.

It involves using the isotope F18 (not the fighter jet) and combining it with a radio-tracer called pivalate.

In October last year, the company reported positive results of a phase II imaging trial involving 17 patients (11 of them treatment naïve).

The gist was that the injected radio-tracers migrated to the tumors effectively.

After a planned follow-up trial, Mr Canevari hopes the FDA will allow the company to go directly to a phase III trial, which would enrol 150 patients and be done and dusted in a year.

He says even launching a phase III trial would be a "game changer" for Radiopharm, given the company didn't exist 16 months ago.

Pancreatic cancer

The company has FDA orphan device indication for Trivehexin, which deploys the gallium-68 isotope and a targeting peptide.

In late December 2022, the company received FDA assent for a phase I trial, with the first patient to be enrolled this month.

"We know a lot about the agent, because it was used in Germany on 66 patients before we licenced it," Mr Canevari says.

He adds the company has identified a site in New York for the planned nine-patient trial. But location is crucial, given there's only a 60-minute window to get the isotope from the radio-pharmacy to the hospital.

"You don't want your products to be stuck in a traffic jam."

Lung cancer and the rest

Radiopharm plans a 22-patient, phase I, small-cell lung cancer trial in Australia, pitched at an imaging and treatment product.

The first patient is expected to be enrolled in May 2023.

This program centres on genetically-engineered antibodies called nano-mabs (mono-clonal antibodies), which – believe it or not - derive from a specific breed of camel.

Should management get the hump with that one, the company is also in cahoots with the MD Anderson Cancer at Texas University. This tie-up involves dabbling in four other pre-clinical candidates, targeting multiple tumors including colorectal cancer.

Getting acquisitive

Last month, Radiopharm said it would pay $US4 million ($A5.9 million) in cash and scrip for the New York-based Pharma15 Corporation, which is seeking to overcome patient resistance to existing prostate cancer treatments.

Pharma15 was founded by radio-pharmaceutical scientists Prof David Ulmert and former investment banker Suzanne Dance. The deal sees Prof Ulmert and nuclear science expert Prof Ken Herrmann join Radiopharm's scientific advisory board.

Also last month, the company unveiled a two-year research tie up with local mob Genesiscare to develop therapies for "complex, hard-to-treat cancers". The parties plan phase I trials that revolve around the nano-mabs platform, targeting non-small cell lung cancer, brain tumors and prostate cancers.

Finances and performances

Radiopharm recorded cash outflows of a tad over $6 million in the second (December quarter), leaving cash on hand of $24.2 million.

To date, the company has raised $80 million, including $40 million in the IPO and $10 million by way of an under-subscribed - but underwritten - rights offer late last year. The terms of the offer were one share for every 3.55 held, at 14 cents apiece. One option was also thrown into the deal as a sweetener, exercisable at 20 cents.

With the Pharma15 deal, half of the cash component was paid immediately, with the remainder in one year's time. The shares are in two equal instalments, with the initial 10.4 million shares priced at 14.31 cents each.

As a contingent consideration, Pharma15's vendors receive a further $US2.3 million in Radiopharm shares, if the FDA approves an investigational new drug application for a Pharma15 product. This milestone is "unlikely to be achieved" before the end of 2025.

Since listing on November 23, 2021, Radiopharm shares have traded between 10 cents (late December 2022) and 38 cents (late December 2021).

Deals, deals, deals

There's been no shortage of merger and acquisition activity in the sector, with 48 deals in 2022 (four more than in 2021).

In a $US2 billion-plus deal, in November last year US medical imaging giant Lantheus bought two radiotherapy assets from fellow Nasdaq listee Point Biopharma, covering prostate and gastro enteric cancers.

Novartis has bought a peptide-targeted radionuclide therapy candidate from Clovis Oncology, which has filed for bankruptcy. The deal involves $US50 million upfront and up to $US630 million more if the drug - like - works.

Meanwhile, Mr Canevari cites eight listed global competitors ranging from the $US4.1 billion market cap Lantheus to the $US12 million Plus Therapeutics.

Two are Australian: Telix Pharmaceuticals (market capitalization $2.25 billion) and Clarity Pharmaceuticals ($125 million). Clarity listed in August 2021 after raising $92 million at $1.40 a share in the biggest IPO in ASX biotech history, but its shares are yet to fire.

Follow the money

With RAD101, the company notes there are 390,000 new brain cancer cases annually in the US. Of these patients, the company assesses an eligible population of 265,000 and a cost per dose of $US4,730, which implies an addressable market of $US1.25 billion.

Mr Canevari adds that Italian company Bracco Imaging is also developing a brain imaging product, with a different mechanism of action.

“Which one is better? Time will tell,” he says. “But with prostate cancer there are three imaging agents [including Telix’s] and there’s enough for all in a $US1 billion-a-year market.”

In the case of pancreatic cancer, there are around 62,000 new cases in the US per year, with 43,000 eligible new patients. The expected cost per dose of $US4,730 to $US9,460 which implies an addressable market of $US200 million to $US400 million per annum.

There are also 236,000 new lung cancer cases in the US every year-– a “blockbuster opportunity”.

Dr Boreham’s diagnosis:

Radiopharm is a minnow in a red-hot sector attracting the big boys’ interest on both the imaging and therapeutic side.

“We are talking about a potentially huge new field of oncology beyond the traditional approach of surgery, chemotherapy or - more recently - cell gene therapy,” Mr Canevari says.

It doesn’t take a brain surgeon to see that if Radiopharm wins FDA approval for its brain cancer agent, it should be radically re-rated by investors - either here or on the Nasdaq. The same applies if it can get the pancreatic cancer to market, although that one is a longer-term proposition.

Unless your columnist has missed something - and that’s quite possible - Radiopharm hasn’t done much wrong. Hopefully the upcoming Nasdaq listing won’t blot the copy book but - as we said - the precedents aren’t promising.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. He’s not listed on Nasdaq but his copy book might contain the odd blot or two.

CYNATA THERAPEUTICS

Cynata says it has commitments of $5 million for a placement at 21.5 cents share, and will offer a share purchase plan capped at $2 million.
Cynata said the funds would be used for its clinical program, including its proposed phase II trial of its mesenchymal stem cells for acute graft-versus-host disease.
The company said the share plan would be at the lower of 21.5 cents or a 2.5 percent discount to the five-day volume weighted average price to the closing date of May 5, 2023.
Cynata said the record date was April 5, 2023 and it would open on April 17, 2023.
The company said the placement was corner-stoned by existing investor Bioscience Managers and was supported by its senior management and directors.
Cynata said that pending shareholder approval, chair Dr Geoff Brooke and directors Dr Ross Macdonald, Dr Darryl Maher, Janine Rolfe, Dr Stewart Washer and Dr Paul Wotton had applied for a total of $137,749 in shares, or 640,694 shares.
The company said both the placement and share plan would provide one attaching option for every two shares bought, exercisable at 30.0 cents by April 1, 2025.
Cynata said Bell Potter Securities was the lead manager to the placement.
Cynata fell 3.5 cents or 13.2 percent to 23 cents.

ANTEOTECH

Anteotech says it has raised $1,796,892 through the exercise of 59,896,410 options at three cents each.
Anteotech said the options exercised were 94.7 of the options on market at March 7, 2023.
Anteotech chief executive officer David Radford said the company was “delighted with the outcome from the exercise of options and [thanked] shareholders for their recent support”.
“This is a strong validation for the company’s recently communicated growth strategy and the funds will be used to accelerate the commercialization plans across both life sciences and clean energy divisions,” Mr Radford said.
Anteotech fell 0.2 cents or five percent to 3.8 cents.

THE WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH

The Walter and Eliza Hall says it has begun the phase I trial of its unnamed anti-malarial drug, developed with Merck Sharpe and Dohme.
The Institute said the drug inhibited plasmepsin IX and plasmepsin X, two enzymes essential for the growth of malaria parasites and the spread of the disease through human-to-mosquito transmission.
WEHI said the study, with Merck Sharpe and Dohme would assess safety tolerability and pharmaco-kinetics of the drug, with results informing the clinical development of the compound.
The Institute said that pre-clinical studies had shown the drug’s dual-targeting mechanism conferred “a high barrier to the generation of resistance” important in combating the disease as malaria parasites became increasingly resistant to available drugs.
WEHI did not provide any protocol details for the trial.
WEHI’s Prof Alan Cowman said that in pre-clinical studies the compound inhibited the two enzymes that process and activate key proteins that enable the parasites to move in and out of red blood cells.
“Inhibiting these two enzymes … effectively disables the parasite from carrying out its key function of replicating and multiplying in the bloodstream,” Prof Cowman said.

OSTEOPORE

Osteopore says it will work with Maastricht University to treat post-traumatic bone defects larger than five centimeters using its implants.

Osteopore said the research would run for up to 48-months and be conducted in collaboration with the Netherlands'-based Maastricht University and the university's hospital, as well as an ortho-biologics company.

The company said it would coat its polycaprolactone and tricalcium phosphate implants in a "number of growth factors" including bone marrow aspirate concentrate and a bone graft drug, then test it against existing techniques including the gold-standard bone graft with scans taken every six months to measure bone growth and the efficacy of the implant.

Osteopore said the research would help determine whether bone growth could be maintained under the influence of a bacterial infection and could potentially lead to a commercial product.

The company said the research would be co-funded by Health-Holland Top Sector Life Sciences & Health.

Osteopore chairman Mark Leong said the research was a "great early-stage, low capital-intensive research project that has promising potential".

"The project forms part of the company's strategy to develop and launch new products to expand the scope of bone regeneration applications across the entire body," Mr Leong said.

Osteopore fell 0.2 cents or 2.25 percent to 8.7 cents.

UNIVERSITY OF QUEENSLAND

The University of Queensland says the Federal Government has granted it about $1 million to test gene therapies for children with hereditary spastic paraplegia type 56.

The University said hereditary spastic paraplegia type 56 (SPG56) was a degenerative brain disease that caused children to lose the ability to sit, stand, walk and talk, and there was no cure or treatment.

The University said Prof Ernst Wolvetang and his team at the Australian Institute for Bioengineering and Nanotechnology hoped to develop a cure using patient-derived brain organoids, which were synthetic organs grown from a patient's own cells.

"This testing will help us create a pathway to faster, more accurate treatments for children with SPG56 and other forms of [hereditary spastic paraplegia]," said Prof Wolvetang said.

"We will test whether gene therapy is safe and effective in brain organoids, which have the same genetic make-up as the patients we aim to help," Prof Wolvetang said.

"Because we have hundreds of brain organoids from each individual growing in the dish, we can systematically test the best therapy approaches without risking harm to the patient," Prof Wolvetang said.

The University said that the project would be the first time in Australia that brain organoids had been used to test the safety and efficacy of gene therapy for hereditary spastic paraplegia.

"We hope pre-clinical testing of the efficacy and safety of our methods in patient-specific brain organoids will enable more rapid progress towards human trials," Prof Wolvetang said.

"Once we demonstrate the power and accuracy of this approach for one genetic disease, it should open the door for testing therapies for a range of other conditions," Prof Wolvetang said.

NOXOPHARM

In a media release titled ‘Noxopharm to Prioritise Cutting-Edge Chroma & Sofra Programs’ the company says it will sack staff and discontinue Veyonda trials.

In 2016, Noxopharm raised $6 million in an initial public offer at 20 cents a share to list on the ASX and develop NOX66 for cancer, with former Novogen founder Dr Graham Kelly as its chief executive officer (BD: Aug 9, 10, 2016).

The company variously described its lead compound as NOX66, Idronoxil and later Veyonda, claiming it crossed the blood-brain barrier, had a potential “abscopal” response shrinking both targeted and non-targeted tumors and had potential for treating Covid-19 (Sars-Cov-2) (BD: Oct 2, 2020).

Last year, Noxopharm said that Dr Gisela Mautner replaced Dr Kelly as its chief executive officer and later that year Dr Kelly resigned as a director, saying that he held directly and indirectly 36,162,294 shares (13.16%) (BD: Jan 16, Sep 19, 2022).

Today, the company said that it would “prioritize resources to Chroma and Sofra technologies to maximise shareholder value” and two Veyonda trials would be discontinued “due to protracted timelines, low patient acceptance of suppositories and predicted cost increases”.

Noxopharm said it would preserve cash with “reduced spending and headcount in clinical roles”.

The company said it would “limit further investment into Veyonda clinical trials by discontinuing Noxopharm’s DARRT-2 and CEP-2 trials”.

Noxopharm said that last year it announced “initial pre-clinical data from a proprietary novel ‘dual-cell’ therapy drug developed under its Chroma platform, which [was] effective in killing both pancreatic cancer cells and their barrier cells to achieve a more profound anti-cancer treatment outcome”.

The company said that pancreatic cancer tumor cells from six samples exposed to its CRO-67 decreased by 85 percent, with barrier cells decreasing by 87 percent, in-vitro (BD: Sep 14, 2022).

Today, Noxopharm said that its Sofra platform was “delivering encouraging early results, with the company announcing in March 2023 the development of a proprietary mRNA vaccine enhancer technology called Sof-Vac” (BD: Mar 28, 2023).

The company said it had “taken the difficult but necessary decision to reduce employee headcount by disbanding Noxopharm’s clinical trials team”.

“Veyonda manufacturing will also be wound down, further reducing ongoing costs [and] Noxopharm will continue to supply Veyonda in order to support currently enrolled and potential future patients in the investigator-initiated Ionic trial led by Prof Paul de Souza,” the company said.

“The board’s decision to discontinue the two company-sponsored trials and disband the clinical team has not been made lightly,” Noxopharm chair Fred Bart said.

“We firmly believe investment into the pre-clinical pipeline is a prudent and lower risk strategy while being more likely to deliver shareholder returns in the future,” Mr Bart said.

“Our proprietary preclinical assets are being built from the ground up with novel characteristics, robust [intellectual property] and encouraging commercial potential,” Mr Bart said.

“As we position ourselves for the future, we also acknowledge the role played by our departing staff members,” Mr Bart said. “The board and management team recognize the valuable work these diligent and talented colleagues have performed over the past few years, often in trying circumstances due to the impact of the pandemic, and wish them all the best in their future careers.”

Noxopharm fell 4.4 cents or 40.0 percent to 6.6 cents with 10 million shares traded.

IMRICOR

Imricor says investors will vote to grant options to chief executive officer Steve Wedan and restricted stock to directors Peter McGregor, Anita Messal and Mark Tibbles.
Imricor said that pending shareholder approval at its annual general meeting and vesting conditions, Mr Wedan would receive up to 1,426,949 options worth $US232,450 ($A346,781), in addition to his base salary of $US464,900 and potentially up-to $US232,450 as a short-term cash incentive.
The company said Mr Wedan's options would vest in three parts following: the first clinical sale of its ventricular tachycardia ablation product; the installation of five clinical sites in the US; and the installation of three clinical sites in Australia.
The company said the options were exercisable at a range of prices from 21 US cents to $US1.57 by July 26, 2032.
Imricor said the meeting would vote to issue 179,775 'restricted stock awards' worth $US40,000 each to Mr McGregor and Mr Tibbles and 168,539 restricted stock awards worth $US37,500 to Ms Messal, vesting over four years.
The company said the stock was in addition to Mr McGregor, Ms Messal and Mr Tibbles' annual directors' fees of $US65,000 "in lieu of a higher cash remuneration".
Imricor said the meeting would vote to promote Mark Tibbles to a 'class one' director, approve the 2019 equity incentive plan and the 10 percent placement facility.
Imricor said the virtual meeting would be held on May 12, 2023 at 8am (AEST).
Imricor was unchanged at 29 cents.

BIOXYNE

Bioxyne says its annual general meeting will vote to issue shares to acquire Breathe International and elect its Samuel Watson as a director.
Last month, Bioxyne said it would buy about 83 percent of the Gold Coast, Queensland-based Breathe Life Sciences and its subsidiaries, but did not disclose a price for the acquisition (BD: Mar 20, 2023).
Today, the company said it would issue 1,230,000,000 shares to Breathe Life Sciences shareholders.
According to its most recent filing, Bioxyne had 665,645,398 shares on issue.
Bioxyne said it would vote to issue Breathe International 576,268,527 shares, as well as up to 37,732,857 shares to its subsidiary Zonetech Wellness, providing Breathe International and Mr Watson a maximum voting power of 32.39 percent in Bioxyne, following the acquisition.
The company said the meeting would vote to issue Mr Watson 20,000,000 performance rights, as well as elect director Jason Hine and issue him 6,666,667 performance rights, and issue 6,000,000 shares to Bioxyne chief executive officer Nam Hoat Chua.
Bioxyne said the meeting would be held at Addisons, Level 12, 60 Carrington Street, Sydney on May 5, 2023 at 2pm (AEST).
Bioxyne was up 0.2 cents or 9.1 percent to 2.4 cents.

COMPUMEDICS

Compumedics says director Paul Jensz has resigned "due to his time commitments elsewhere", effective from March 31, 2023.
Last year, Compumedics said that it had appointed Mr Jensz as a non-executive director (BD: Jan 18, 2022).
Compumedics was unchanged at 14 cents.

CORRECTION: USCOM

Last night's edition incorrectly said that Uscom 'bought back' 1,138,605 unmarketable parcel shares held by 166 investors, at 4.5 cents a share.

Biotech Daily has been told that a 'buy-back' is different from an 'unmarketable parcel facility' in that a buy-back generally cancels the acquired shares, while an unmarketable parcel facility usually resells the shares.

No accountants, chief financial officers, company secretaries or sub-editors were hurt in making this correction.

Uscom was untraded at 4.5 cents.