Biotech Daily

Friday September 18, 2020

Daily news on ASX-listed biotechnology companies

*** ASX DOWN, BIOTECH UP: IMMUTEP UP 37%; CYCLOPHARM DOWN 10%**

*** DR BOREHAM'S CRUCIBLE: PROTEOMICS INTERNATIONAL**

*** IMMUTEP: 3 COMPLETE RESPONSES TO IMP321, KEYTRUDA**

*** IMMUTEP: 5 OF 12 SOLID TUMOR PATIENTS HAVE PARTIAL RESPONSE**

*** COCHLEAR OPPOSES ADVOCATE STEPHEN MAYNE BOARD BID**

*** EMERALD CLINICS EGM BACKS NAME CHANGE TO EMYRIA**

*** CARDIEX SPHYGMOCOR GRANTED EUROPEAN PATENT**

*** AUSTRALIAN ETHICAL TAKES 15% OF NOVA EYE**

*** CRAIG DARBY INCREASES, DILUTED WITH WASHER FAMILY IN EMERALD**

*** M-D DR IAN DIXON DILUTED TO 23% OF EXOPHARM**

*** RACE APPOINTS CSS CLINICAL, FDA ADVISORS**

*** NOXOPHARM APPOINTS DESTUM IMMUNO-ONCOLOGY ADVISOR**

MARKET REPORT

The Australian stock market fell 0.32 percent on Friday September 18, 2020, with the ASX200 down 18.7 points to 5,864.5 points. Twenty of the Biotech Daily Top 40 stocks were up, 12 fell and eight traded unchanged. All three Big Caps fell.

Immutep was the best on progressive trial results (see below), up eight cents or 37.2 percent to 29.5 cents with 40.9 million shares traded. Alterity climbed 20 percent; Antisense was up 13 percent; Proteomics improved 10.6 percent; Cynata and Oncosil were up four percent or more; Actinogen, Nova Eye, Prescient, Resonance and Starpharma were up more than three percent; Avita, Dimerix and Mesoblast rose more than two percent; Opthea, Orthocell and Universal Biosensors were up more than one percent, with Kazia, Polynovo and Pro Medicus up by less than one percent.

This week's 88.5 percent best, Cyclopharm, led the falls, down 27 cents or 10.3 percent to $2.35, with 70,593 shares traded. Pharmaxis fell 5.9 percent; Optiscan lost 4.55 percent; Resmed shed 2.3 percent; Cochlear, Compumedics, CSL, Impedimed, Medical Developments, Neuren, Paradigm and Volpara were down more than one percent; with Nanosonics, Next Science and Telix down by less than one percent.

DR BOREHAM'S CRUCIBLE: PROTEOMICS INTERNATIONAL LABORATORIES

By TIM BOREHAM

ASX code: PIQ

Share price: 52 cents; **Shares on issue:** 92,405,875; **Market cap:** $48.05 million

Chief executive: Dr Richard Lipscombe

Board: Terry Sweet (chairman), Dr Lipscombe, Roger Moore, Paul House

Financials (12 months to June 30, 2020): revenue $1.9 million, loss of $1.74 million, cash on hand $2.36 million, quarters of available funding: three

Major identifiable holders: Dr Lipscombe 19.54%, John Dunlop 4.17%, Xylo Pty Ltd (The Parker Family) 3.25%, Sparrow Holdings (Sweet super fund) 2.53%.

Proteomics chief executive Richard Lipscombe adheres to a simple but elegant dictum: "If you can predict earlier, you can intervene earlier."

With earlier detection, patients can go on a drug earlier at a lower, safer dosage or perhaps be treated with something more novel.

In the case of the Perth-based diagnostics house, the key aim is to prevent millions of cases of diabetes turning into diabetic kidney disease (DKD). Sufferers face two outcomes and neither is attractive: an organ transplant or a (shortened) life on dialysis.

After years of development Proteomics key product Promarker D is now "revenue ready", having been simplified into a product that client labs can use more easily.

A blood test, Promarker D also has Conformité Européenne (CE) mark approval for diabetic kidney disease prediction and the company is also eyeing assent from the US Food and Drug Administration.

"We had a viable test some years ago, but discovered it was too complex for everyday lab use," Dr Lipscombe says. "We took a decision to re-engineer it and we have done that without any loss of performance."

Proteomics explained

Proteomics is the art of mapping the structure and function of proteins that, unlike genes, differ from cell to cell. Promarker D is about identifying "biological fingerprints".

The objective is to find a fingerprint to distinguish one individual with the disease from one who isn't afflicted.

While diabetic kidney disease remains the company's key focus, Promarker D is based on a platform technology and can be used in other life sciences, veterinary health and agriculture applications.

Proteomics currently earns its revenue from analytic services to support clinical trials.

For example, Proteomics is engaged by A2 Milk to check that all of its cow juice sold in Western Australia contains the A2 protein and is not tainted by the A1 variety.

Proteomics was spawned from the University of Western Australia (UWA) and then listed in April 2015, having raised $3.1 million at 20 cents apiece.

Proteomics activities are based at Perth's Harry Perkins Institute of Medical Research, which boasts the first laboratory in the world to receive international standards accreditation for proteomics services.

Dr Lipscombe and fellow company founder, the late Dr Bill Parker, worked on protein analysis at UWA.

Dr Lipscombe says choosing diabetes was a no-brainer: it's a widespread disease, with 260 million folk affected today and 700 million likely to be affected within 20 years if the trends endure.

While diabetes doesn't kill anyone, the knock-on effects certainly do, including loss of eyesight, cardiovascular disease and amputations … and kidney damage.

One in three diabetics will develop diabetic kidney disease, but the existing urine-based tests are not effective.

It doesn't help that kidney disease is a silent killer: you can lose 20 percent of kidney function and feel a bit lethargic, but with no other prior symptoms.

Paradoxically, healthy people can give 50 percent of their kidney function away by donating one of the organs (such as Kerry Packer's generous helicopter pilot).

But once a kidney is 15 to 20 percent damaged it's not repairable and there's only one path: dialysis or a transplant and with the former you can expect to live another five years - even if you are a billionaire.

3,000 patients can't be wrong

Proteomics has long partnered with the University of WA's medical school, which has been carrying out one of the world's biggest diabetes trial (the Fremantle study).

A four-year validation study of 792 patients showed Promarker D was able to predict, with 86 percent accuracy, the incidence of disease-free candidates going on to develop the ailment.

These results have now been vindicated by a global study carried out in collaboration with Janssen Research and Development, an arm of Johnson & Johnson. The study showed the patients predicted by Promarker D to be at high risk of diabetic kidney disease were 13.5 times more likely to develop it than patients classed as low risk.

“Importantly, the [data] confirms previous findings that Promarker D is able to correctly predict a clinically significant decline in kidney function up to four years in advance,” Dr Lipscombe says.

Janssen is testing the efficacy of its drug Invokana (canagliflozin) to treat diabetic kidney disease (DKD). In 2018 the FDA approved the drug to reduce the risk of cardiovascular events among type two diabetes sufferers.

“It's an exciting area. There are a lot of drugs on trial for DKD and it's fantastic from the point of view of what we can do with DKD,” Dr Lipscombe says.

But he adds: “It’s one thing to be diagnosed, but it’s good to know there’s a treatment.”

The second stage of the testing involves using the diagnostic to gauge the actual efficacy of the drug.

The path to commercialization

Dr Lipscombe dubs the company “revenue ready”, with some initial licencing deals in test markets. The company initially will focus on commercial laboratory clients, especially in the US, with the test integrated into the labs’ standard panels.

“Having got the tech into a simple-to-use immune assay format, we are in dialogue with a number of groups about getting that test available,” he says. “In parallel with that, we would look at FDA approval for the kit version.”

He says there’s also the opportunity to provide the “platform agnostic” tech to diagnostic device makers such as Siemens or Roche.

“We are exploring and engaging in a number of avenues, from the manufacturers of the instruments for the pathology labs to the labs themselves."

Geographically, the company is targeting the US, Europe and Japan. While the US leads the way with 30 million type 2 diabetes sufferers, Japan has 10 million despite the nation’s famed healthier, fish-based diet.

“We are looking at these markets from an informed perspective in terms of where we want to go and why,” Dr Lipscombe says.

Covid-19 and other catastrophes

The company’s prospective pipeline includes tests for endometriosis, giardia, cancers and perhaps even Covid-19.

Endometriosis is abnormal growth of the uterine lining outside the uterus. It's very hard to diagnose, via laparoscopy (minimally invasive surgery).

A proof-of-concept study yielded "significant results" and the company is eying a larger study.

Some cancers lend themselves to protein-based testing, others to genetic based (such as prostate and breast).

"We are looking at applying the newer technologies and have moved to the point of maturity where they can be successfully applied to a range of diseases," Dr Lipscombe said.

And yes, the platform could potentially be applied to detecting and/or predicting the presence of Sars-Cov-2.

Armed with a $200,000 grant from the Western Australian Covid-19 grants program, the company is mulling a saliva-based test to replace the current method that involves a sadistic***** nurse and a deep nasal swab.

These tests are also complex for laboratories to handle.

The second leg of the Covid-19 work involves isolating a protein "fingerprint" biomarker that may explain why some sufferers breeze through the disease with nary a symptom, while others are far less fortunate.

"There must be a difference in their biological makeup that's responsible for that," Dr Lipscombe says.

The research is being carried out in alliance with the University of Western Australia's respiratory physicians. To date, the work has been stymied by a lack of subjects in the Western Australia bubble - but "developments in Melbourne have made the projects more achievable".

Finances and performance

The reality of the health system is that a diagnostic tool will only gain traction if the proponent can demonstrate a bottom-line benefit to the health funders.

In the US the company is eyeing a minimum price of $US55 ($A76) per test, based on existing reimbursement codes. But the company is pushing for its own more generous CPT (current procedural terminology or reimbursement) code, in which case a much higher per-test price is possible.

Health insurers are acutely aware that dialysis costs an average $US72,000 per patient per year.

"The benefits to the patients and benefits to the healthcare system are going to be massive," Dr Lipscombe enthuses.

Meanwhile, Proteomics has a modest cash balance of $2.37 million as of June 30, having raised $3 million late last year.

The company spent $3 million on research and development in the 2019-20 year, with revenue of $1.5 million. “We are on a similar trajectory this year,” Dr Lipscombe says.

He says the company is fully-funded for the next 12 months and will only raise more for “strategic” reasons.

Mind you, the market’s amenable to life science companies passing the hat around.

“There seems to be quite a few pennies thrown around. I won’t pass comment on the wisdom of that in some cases,” Dr Lipscombe says.

Proteomics has a tightly held register, with Dr Lipscombe accounting for just under 20 percent and his fellow directors a further four percent or so.

Proteomics shares have traded between 15 cents (June 1, 2017) and 68.5 cents (August 5, 2020).

Dr Boreham’s diagnosis:

An obvious question is why no-one has developed an effective predictive test for diabetic kidney disease until now.

“The reality is, it's not simple to find out what's going on,” Dr Lipscombe says. “Diabetes is a complex condition and there are a lot of confounding variables.”

Large studies are required to screen out markers for other diabetes complications such as cardio vascular disease.

The recent on-market performance of Volpara Health Technologies, Genetic Signatures and the freshly listed Atomo Diagnostics shows what can happen when a company gets a diagnostic product to market.

In another comparison, kidney diagnosis house Renalytix recently raised $US80 million to list on the Nasdaq and now has a $US1.02 billion market valuation. The company has no approved products.

In short, now’s the time for Proteomics to get a wriggle on.

Disclosure: Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort.

***** Rest assured, 99 out of 100 nurses are lovely caring people, but your columnist got Nurse Ratched on a bad day

IMMUTEP

Immutep says that three patients in its up-to 109 patient Tacti-002 phase II trial of IMP321, or eftilagimod alpha, with Keytruda for cancer have shown with a complete response.

In April, the company said interim data from the study showed that nine of 17 non-small cell lung cancer (NSCLC) patients reported a partial response and 12 of 17 patients showed a target lesion decrease in part A of stage one of the trial (BD: Apr 28, 2020).

Today, the company said the open-label, single-arm study of IMP321, in combination with Keytruda, or pembrolizumab, was run in three groups, with each part in two stages: part A treated non-small cell lung cancer (NSCLC) patients in their first line of treatment; part B treated NSCLC patients in their second line of treatment and; part C treated head and neck squamous cell carcinoma (HNSCC) patients in their second line of treatment.

The company said that at August 21 two of 18 HNSCC patients and one of 17 first line NSCLC patients had complete responses, or the complete disappearance of all lesions.

Immutep said five HNSCC patients had a partial response and two stable disease, while eight NSCLC patients had a partial response and four showed stable disease.

The company said HNSCC patients had a median progression-free survival of 4.3 months, with eight progression-free at six months, while first-line NSCLC patients had a median progression-free survival of 11.8 months, with eight progression free at 12 months.

Immutep said part A of the study had completed enrolment, but six patients were undergoing treatment, and part B and C had on-going second stage recruitment.

Tacti-002 trial principal investigator Dr Martin Forster said he was “very encouraged by the results in this patient group with resistant late stage head and neck cancers where the likelihood of response to other treatments is small”.

“The durability of responses and the two patients with a complete response are extremely promising signals and this combination should be further investigated,” Dr Forster said.

Immutep chief scientific officer Dr Frederic Triebel said that in comparable studies, HNSCC patients receiving pembrolizumab monotherapy had a median progression free survival of 2.1 months, or 2.3 months if given chemotherapy compared to 4.3 months in HNSCC patients from the Tacti-002 trial, so far.

Immutep said it expected to report first data from stage two and more mature data from stage one at a conference “later this calendar year”.

Immutep was up eight cents or 37.2 percent to 29.5 cents with 40.9 million shares traded.

IMMUTEP

Immutep says five patients in its 12-patient Insight-004 phase I trial of IMP321 and avelumab for advanced solid tumors have shown a partial response.

Immutep said the trial was split into two cohorts of six patients with different solid tumors, primarily gastrointestinal, with patients in cohort one receiving 6mg of IMP321, or eftilagimod alpha, with the standard 800mg dose of avelumab, or Bavenico, every two weeks, while patients in cohort two received 30mg of IMP321 with 800mg of avelumab every two weeks.

The company said that at June 12, 2020, five patients had a partial response, one had stable disease, five showed progressive disease, including two with clinical progression and one was not evaluable as the response assessment had not been performed.

Immutep said the interim results showed that the combination of IMP321 and avelumab was safe and well tolerated with “no dose limiting toxicities”.

Insight-004 trial investigator Prof Salah-Eddin Al-Batran said it was “encouraging” to see the range of patients with different solid cancers responding to the combination of [IMP321] and avelumab.

COCHLEAR

Shareholder advocate Stephen Mayne has nominated for election to Cochlear board, with the current board opposing his election.

In the notice of annual general meeting Mr Mayne said that he had worked for newspapers including the then Fairfax newspapers Australian Financial Review and The Age and as a press secretary to the Jeff Kennett Liberal Government of Victoria.

Mr Mayne said that he was a director of the Australian Shareholders' Association and was running for election to the board primarily in relation to the $1.1 billion capital raising which he said was "unfair for retail investors" and "the board showed a lack of respect for retail shareholders" (BD: Mar 25, Apr 29, 2020).

Mr Mayne said Cochlear conducted "an over-sized $880 million discounted institutional placement and then an under-sized share purchase plan which was initially capped at $50 million and then expanded to $220 million after receiving $419 million in applications".

Mr Mayne said the allocated $300 million of shares to London's Veritas fund was more than the $220 million of shares allocated to 16,651 retail shareholders.

Mr Mayne said that he founded the digital business www.crikey.com.au, published the corporate governance www.maynereport.com and wrote a column for the Eureka Report.

Mr Mayne said he was previously a director of an aged care business with $10 million in revenue, and spent four years as a City of Manningham councillor and four years as a City of Melbourne councillor.

Cochlear responded saying it had "a well-defined board succession and renewal planning process to identify and nominate potential new directors" and it "ultimately makes the selection of the preferred candidate".

"Having regard to the selection criteria adopted by the nomination committee for director appointments, the board does not consider Mr Mayne's stated skills, experience and intentions fit the Cochlear board requirements," Cochlear said.

"Cochlear also considers that Mr Mayne's concerns about the treatment of retail shareholder's in Cochlear's $1.1 billion capital raising this year are not justified," the company said.

"The board unanimously believes that it is not in the best interests of shareholders that Mr Mayne be elected and recommends that shareholders vote against the resolution … and the chairman intends to vote all available proxies against the resolution," the company said.

Cochlear said that shareholders would also vote to issue chief executive officer Dig Howitt a short-term incentive of up to $1,806,000 and a long-term incentive of up to $1,806,000 in a combination of options and shares pending performance targets.

The company said the meeting would consider two special resolutions, one replacing the constitution and the other inserting proportional takeover provisions into the constitution, as well as voting on the remuneration report and the re-election of directors Andrew Denver, Prof Bruce Robinson and Michael Daniell.

Cochlear said the meeting would be held virtually on October 20, 2020 at 10am (AEDT).

Cochlear fell $2.90 or 1.5 percent to $191.47 with 272,146 shares traded.

EMERALD CLINICS

Emerald says its extraordinary general meet has overwhelmingly approved the resolution to change the company name to Emyria (BD: Aug 17, 2020).

Emerald said 105,910,156 votes were in favor of the name change, with 287,778 at the proxy holder's discretion, and no votes against.

Emerald fell 0.2 cents or 2.3 percent to 8.4 cents.

CARDIEX

Cardiex says the European Patent Office has granted a patent for its Sphygmocor technology used in cuff-based brachial blood pressure devices.
Cardiex said the patent, titled 'Brachial cuff' would protect its intellectual property until March 2034.
The company said the patent, granted thought subsidiary Atcor, covered the non-invasive estimate of central aortic pressure waveforms with features related to cardiac function and arterial properties using a conventional blood pressure cuff.
Cardiex said its Sphygmocor technology when used in a blood pressure cuff provided a non-invasive, simple, and operator-independent tool to clinically diagnose the cardiovascular system and estimate the risk of heart disease.
The company said the patent followed similar patents granted in Japan and the US (BD: Feb 17, Mar 9, 2016).
Cardiex was up 0.3 cents or 6.1 percent to 5.2 cents with 13.8 million shares traded.

NOVA EYE MEDICAL (FORMERLY ELLEX MEDICAL LASERS)

Australian Ethical Investment says it has increased its substantial shareholding in Nova Eye from 20,522,701 shares (14.29%) to 21,993,912 shares (15.32%).
The Sydney-based Australian Ethical said that between August 19 and September 8, 2020 it bought 1,471,211 shares for $457,079 or an average of 31.1 cents a share.
Nova Eye was up one cent or three percent to 34 cents.

EMERALD CLINICS

Craig Darby says he has increased his holding in Emerald Clinics and with Dr Stewart and Dr Patrizia Washer, Mal Washer, Mercator Shipwrights Pty Ltd been diluted.
Last month, Emerald said it had "binding commitments" to raise $2.2 million in a placement at eight cents a share (BD: Aug 28, 2020).
Today, Mr Darby said he had increased and been diluted in Emerald from 21,825,000 shares (11.87%) to 22,709,709 shares (10.74%).
Mr Darby said that between May 25 and August 4, 2020 he bought 884,790 for $46,978 an average of 5.3 cents a share and was diluted on September 7 following a placement.
Dr Stewart and Dr Patrizia Washer said their 48,000,000 share-holding had been diluted from 26.1 percent to 22.7 percent.
Dr Mal Washer said that Mal Washer Nominees' 19,600,000 share-holding had been diluted from 10.66 percent to 9.27 percent.
Mercator Shipwrights said its 19,600,000 shareholding in Emerald had been diluted from 10.66 percent to 9.27 percent.

EXOPHARM

Exopharm managing-director Dr Ian Dixon says his 27,975,294 share-holding in Exopharm has been diluted from 29.30 percent to 23.44 percent.
The Melbourne-based Dr Dixon said his holding was diluted on September 8, 2020 following a $10 million placement at 24 cents a share (BD: Aug 27, 2020).
Exopharm was up four cents or 14.3 percent to 32 cents.

RACE ONCOLOGY

Race say it has appointed CCS Associates to advise the development options for Bisantrene as an inhibitor of the fat mass and obesity-associated protein (FTO).
Race said FTO was linked to cancer progression, and preclinical studies had shown Bisantrene to be a “highly potent FTO inhibitor at low, non-toxic concentrations” indicating that the drug had possible application across multiple cancer sub-types.
The company said the Mountain View, California-based CSS Associates, a scientific research consulting firm founded by Dr Caroline C Sigman, would advise the company about the clinical development of Bisantrene as an FTO inhibitor as well as working with the current regulatory advisor to review Race’s investigational new drug applications to be submitted to the US Food and Drug Administration.
Race was up half a cent or 0.6 percent to 78.5 cents.

NOXOPHARM

Noxopharm says it has appointed Destum Partners to advise its immune-oncology research, including its direct and abscopal response to radiotherapy program.
Noxopharm said the Charlotte, North Carolina-based Destum would advise the company regarding its direct and abscopal response to radiotherapy (Darrt) program, which combined Veyonda, or NOX66, and low-dose radiotherapy for a “considerably more cost-effective, more accessible and better tolerated [immune-oncology] treatment”.
The company said initially Destum would advise on Darrt for end-stage prostate cancer, then offer transaction advice on strategic partnerships, licencing and merger and acquisition deals.
Noxopharm was up four cents or 11.4 percent to 39 cents with 2.5 million shares traded.