Biotech Daily

Tuesday November 18, 2014

Daily news on ASX-listed biotechnology companies

*** ASX, BIOTECH DOWN: PATRYS UP 12%, BENITEC DOWN 9%**

*** MELBOURNE UNI TEAM FINDS GENETIC CAUSE FOR RARE EPILEPSY**

*** ASX AGGREGATOR 'MISINTERPRETS' ANTISENSE SUBSTANTIAL**

*** ELLEX: RESEARCH BACKS 2RT LASER TREATMENT FOR AMD**

*** IRELAND BECOMES 13th COUNTRY TO APPROVE PSIVIDA'S ILUVIEN**

*** PHARMAUST JOINT PPL-1 IP WITH UNNAMED JAPANESE COMPANY**

*** PRANA PBT2 HUNTINGTON'S RESULTS IN LANCET, FDA MEETING**

*** PFIZER SUES MAYNE OVER DOFETILIDE ANTI-ARRHYTHMIC DRUG**

*** UP TO 16% DISSENT AGAINST CIRCADIAN DIRECTOR STOCK PLAN**

*** UP TO 31% OPPOSE LIVING CELL PLACEMENT**

*** UP TO 23% OF UNILIFE OPPOSE DIRECTOR SHARES**

MARKET REPORT

The Australian stock market fell 0.24 percent on Tuesday November 18, 2014 with the S&P ASX 200 down 12.8 points to 5,399.7 points. Nine of the Biotech Daily Top 40 stocks were up, 19 fell, eight traded unchanged and four were untraded.

Patrys was the best, up 0.2 cents or 11.8 percent to 1.9 cents with 1.2 million shares traded, followed by Ellex up 10.5 percent to 31.5 cents with 55,000 shares traded. Living Cell climbed 10 percent; Genetic Technologies was up 7.1 percent; Neuren was up 4.8 percent; Sirtex rose 2.7 percent; Pharmaxis and Resmed were up more than one percent; with Clinuvel and Mesoblast up by less than one percent.

Benitec led the falls, down six cents or 8.8 percent to 62.5 cents with 450,940 shares traded. Uscom lost 5.4 percent; Admedus, Anteo, Atcor, Nanosonics, Oncosil and Optiscan fell more than four percent; Analytica, Antisense, Cellmid and Universal Biosensors were down more than three percent; Acrux, IDT and Starpharma shed more than two percent; Cochlear, Impedimed, Phosphagenics and Viralytics were down more than one percent; with Bionomics and CSL down by less than one percent.

THE UNIVERSITY OF MELBOURNE, AUSTIN HEALTH

The University of Melbourne says that a research team including Epilepsy Research Centre director Prof Sam Berkovic has identified a gene for a form of epilepsy.
The research, entitled 'A recurrent de novo mutation in KCNC1 causes progressive myoclonus epilepsy' was published in Nature Genetics.
An abstract is at: http://www.nature.com/ng/journal/vaop/ncurrent/full/ng.3144.html
The University said that progressive myoclonus epilepsies were rare, inherited and usually childhood-onset neurodegenerative diseases whose core symptoms were epileptic seizures and debilitating involuntary muscle twitching, or myoclonus.
Prof Berkovic said progressive myoclonus epilepsy was one of the most devastating forms of epilepsy.
"For the study, we used modern DNA sequencing technologies, which have revolutionized genetic research of rare, severe diseases," Prof Berkovic said.
"It showed a single mutation in a gene explains a significant proportion of unsolved [progressive myoclonus epilepsy] cases," Prof Berkovic said.
"The new mutation identified in the study disrupts the function of a pathway that has a central role in signal transmission in the brain," Prof Berkovic said.
In a media release, the University said that the likely consequence of the mutation was that signals in certain parts of a patient's brain were reduced, making patients susceptible to epileptic seizures and involuntary muscle twitching starting in childhood.
The University said that the mutation caused degeneration of the cerebellum and subtle cognitive decline in some of the patients.
The media release said that the study findings shed light on the molecular genetic basis of progressive epilepsy that might lead to potential new treatments for the disease.
The University said that the researchers emphasized the importance of international collaboration for the study, with Prof Berkovic coordinating the patient sample collection spanning 20 years and involving multiple epilepsy centres worldwide.
"This study shows the power of combining sample collections and knowledge from different countries," Prof Berkovic said.
The University said that participating research institutes included the University of South Australia, the University of Helsinki, the Institute for Molecular Medicine Finland and Folkhälsan Research Center Finland, the UK Wellcome Trust Sanger Institute, Germany's University of Tübingen and several universities in Italy.

ANTISENSE THERAPEUTICS

Antisense says it is aware of "a news report today on Nabtrade that has misinterpreted the recent notice of change of interests of substantial shareholder issued by Circadian".
Antisense said that the report, which was believed to originate with the ASX media release aggregator Lexisnexis, "incorrectly states that Circadian had sold 128,787,604 shares worth $12,621,185 on November 12, 2014 at 10c per share".
"The company would like to confirm that no shares were sold by Circadian on November 12, 2014," Antisense said.
"As per the notice, Circadian holds 14,361,583 shares post-consolidation and recent capital raising (8.89%), adjusted and diluted from 143,149,187 (11.03%)," Antisense said.
Biotech Daily's report of the Circadian companies' change of substantial shareholder notice was accurate (BD: Nov 17, 2014).
Antisense fell 0.3 cents or 3.1 percent to 9.3 cents.
Circadian was unchanged at 17 cents.

ELLEX MEDICAL LASERS

Ellex says scientific and clinical research support the therapeutic and safety profile of its retinal rejuvenation (2RT) technology for age-related macular degeneration (AMD).

Ellex said that the scientific and clinical research incorporated two sets of work: 24-month clinical data, following-up the 12-month pilot study '2RT for Early AMD' and scientific work on the impact of 2RT in two surgically removed human eyes and a series of animal eye models.

The company said that a research paper, entitled 'Nanosecond laser therapy reverses pathological and molecular changes in age-related macular degeneration without retinal damage', was published in Federation of American Societies for Experimental Biology and an abstract is at: http://www.fasebj.org/content/early/2014/11/12/fj.14-262444.abstract.

Ellex said the publication would assist the "current controlled commercial roll out of 2RT in key markets" and supported the focus of the multi-centre double-blind, randomized, controlled trial entitled 'Laser intervention in early AMD' known as the Lead trial.

The company said that the 24 month clinical data demonstrated a sustained reduction in drusen.

Ellex said that the 24-month clinical data, conducted by the Melbourne-based Centre for Eye Research Australia's Prof Robyn Guymer demonstrated the potential of 2RT to reverse the accumulation of drusen in patients with high-risk early age-related macular degeneration.

The company said that presence of drusen, small fatty deposits in the eye, was a key risk factor for age-related macular degeneration progression.

Ellex said that 51 patients with intermediate age-related macular degeneration underwent treatment with 2RT in one eye, with the drusen area in each eye graded at baseline, and post-treatment at 12 months and 24 months respectively.

The company said that drusen changes in the treated eye were evaluated against a natural history age-related macular degeneration cohort of similar age range and clinical severity.

Ellex said that 2RT reduced drusen area in 35 to 40 percent of treated eyes at 24 months, compared to five to 11 percent of eyes in the natural history cohort.

Ellex chief executive officer Tom Spurling said that no patients in the 24-month pilot study progressed to wet age-related macular degeneration.

"This is further evidence which suggests that 2RT may be a potential viable intervention for those at risk of vision loss from AMD," Mr Spurling said.

Ellex said that the scientific research, conducted at the University of Melbourne by Prof Erica Fletcher, evaluated two surgically removed human eyes, which underwent treatment with 2RT just prior to being removed and a series of mouse eye models.

The company said that a number of criteria were assessed, including retinal damage profiles, neuronal effect and inflammatory response.

Ellex said the research demonstrated the ability of 2RT to reverse the pathological and molecular profiles of age-related macular degeneration without resulting in retinal damage.

"Our research suggests that nanosecond laser therapy can improve the health of the retinal pigment epithelium, a matrix of cells located at the back of the eye which play a critical function in maintaining eye health," Prof Fletcher said. "By improving the function of the [retinal pigment epithelium] cells, we may be able to limit the progression of AMD and prevent its advancement to the late stage of the disease, known as wet AMD."

Prof Fletcher said the human eye findings corroborated those from the mouse eye models and it was "the first time we have been able to demonstrate the mechanism of action of 2RT in human retina explants".

Ellex was up three cents or 10.5 percent to 31.5 cents.

PSIVIDA CORP

Psivida says that Ireland has become the 13th country to approve the commercialization of Iluvien for vision loss due to chronic diabetic macular oedema.

Psivida said that the Irish Health Products Regulatory Authority granted Iluvien marketing authorization for the treatment of vision impairment associated with chronic diabetic macular oedema considered insufficiently responsive to available therapies.

The company said that Iluvien had marketing approval in 12 EU countries, was pending approval in five others and was recently approved in the US for treatment of diabetic macular oedema (DME) where it was expected to be commercially available in early 2015.

Psivida said that Iluvien was indicated for patients previously treated with a course of corticosteroids who did not have a clinically significant rise in intraocular pressure.

Psivida chief executive officer Dr Paul Ashton said his company was “pleased that Iluvien has continued to gain marketing approvals in Europe as well as the US”.

“We believe Iluvien’s efficacy and three-year duration will make it an attractive treatment option for many DME patients, particularly in the US where the drug has broader labeling,” Dr Ashton said.

Psivida was untraded at $4.24.

PHARMAUST

Pharmaust says it has a joint intellectual property position for its anti-cancer drug candidate with an unnamed Japanese company.

Pharmaust said that a materials transfer agreement was signed with the Japanese company in 2013, prior to completion of the Pitney acquisition (BD: Jul 23, 2013).

The company said that the joint intellectual property allowed it access to about 80 analogues of PPL-1, synthesized by the Japanese research partner and tested for anti-cancer activity by Pharmaust.

Pharmaust said that the joint patent application would be published in March 2015 and further permitted Pharmaust to commercialize the analogues subject to other prevailing intellectual property at the time of commercialization.

Pharmaust executive chairman Dr Roger Aston said that the commercialization of amino-acetonitriles in cancer of which PPL-1 was a key approved product for treatment of veterinary parasites, was the company’s principal activity.

“Both the current dog trial and the human trial underway in [New South Wales and South Australia], respectively, are targeting cancer under circumstances where the recipient has failed all standards of care,” Dr Aston said.

“Success in either or both of these trials will be a key driver for commercial development of anti-cancer drugs based on the amino-acetonitrile class of drug and in the forging of alliances to commercialize such products,” Dr Aston said.

“Pharmaust currently has a collaborative research and option agreement with one of the top five major global pharmaceutical companies for the development and commercialization of PPL-1 in veterinary cancers,” Dr Aston said.

Pharmaust said that the cancer chemotherapy market was estimated at $US42 billion a year and was the fastest growing sector within the pharmaceutical industry, mainly driven by the identification of new potential therapeutic targets.

The company said that cancer chemotherapy growth was further fuelled by the magnitude of the disease worldwide, estimated at more than 25 million people with cancer globally, and an estimated five million people dying each year from the disease.

Pharmaust was up 0.1 cents or 14.3 percent to 0.8 cents with 16.6 million shares traded.

PRANA BIOTECHNOLOGY

Prana says its trial of PBT2 for Huntington's disease has been published and it will meet with the US Food and Drug Administration to discuss continued development.

Prana said the 109-patient, double-blind, placebo-controlled phase II trial in Australia and the US met its primary endpoint of safety and tolerability in the (BD: Feb 18, 2014).

The company said that the patients in the 'Reach2HD' trial were randomly assigned to receive daily doses of either PBT2 250mg, PBT2 100mg, or placebo for 26 weeks.

The article, entitled 'Safety, tolerability, and efficacy of PBT2 in Huntington's disease: a phase 2, randomised, double-blind, placebo-controlled trial', was published in the Lancet Neurology, accompanied by an editorial in the journal, and an abstract is at: www.thelancet.com/journals/laneur/article/PIIS1474-4422%2814%2970262-5/abstract.

The article concluded with an interpretation of the results saying: "PBT2 was generally safe and well tolerated in patients with Huntington's disease".

"The potential benefit on executive function will need to be confirmed in a larger study," the abstract said.

The study found that six serious adverse events (acute coronary syndrome, major depression, pneumonia, suicide attempt, viral infection, and worsening of Huntington's disease) occurred in five participants in the PBT2 250 mg group, three (fall with subdural haematoma, suicide attempt, and hospital admission for stabilization of Huntington's disease) occurred in two participants in the PBT2 100 mg group, and one (increasing aggression) occurred in a participant in the placebo group.

The abstract said that the site investigators deemed all, except the worsening of Huntington's disease, as unrelated to study drug, with 32 (89%) participants on PBT2 250 mg, 30 (79%) on PBT2 100 mg, and 28 (80%) on placebo having at least one adverse event.

The study found that compared with placebo, neither PBT2 100 mg ($p = 0{\cdot}772$) nor PBT2 250 mg ($p = 0{\cdot}240$) significantly improved the main composite cognition Z score between baseline and 26 weeks.

The abstract said that compared with placebo, the trail making test part B score was improved between baseline and 26 weeks in the PBT2 250 mg group ($p = 0{\cdot}042$) but not in the 100 mg group ($p = 0{\cdot}925$) and neither dose significantly improved cognition on the other tests.

Prana said that the results "support the view that the findings ... warrant further investigation in a large clinical study powered to measure efficacy".

The company said that the paper was authored by investigators from the Huntington Study Group led by the University of Rochester's Dr Ray Dorsey.

"Publication in the Lancet Neurology reflects the outstanding contribution of the investigators and participants in the study, highlights the importance of the study and serves as a basis for planning future studies of PBT2 for the treatment of Huntington's disease," Dr Dorsey said.

Prana executive chairman Geoffrey Kempler said the next steps for the commercialization program of PBT2 for Huntington's disease was the FDA end of phase II.

"The Lancet Neurology publication supports our commitment to take the next steps in the commercial pathway towards developing PBT2 as a treatment for Huntington's disease," Mr Kempler said.

"Publication of the Reach2HD trial follows the recent granting of orphan drug designation by the FDA for PBT2 for Huntington's disease," Mr Kempler said (BD: Sep 5, 2014).

Prana was unchanged at 18.5 cents.

MAYNE PHARMA GROUP

Mayne Pharma says that Pfizer is suing one of its US subsidiaries in relation to an application to the US Food and Drug Administration for dofetilide capsules.

Mayne said that abbreviated new drug application was for dofetilide capsules in 0.125mg, 0.25mg, 0.5mg strengths, a generic version of Pfizer's Tikosyn which was an anti-arrhythmic agent to prevent irregular heartbeats such as atrial fibrillation and atrial flutter.

Mayne said that its US-based subsidiary "may be the first applicant to file an abbreviated new drug application for the generic version of Tikosyn and, should its abbreviated new drug application be approved, it may be entitled to 180 days of generic market exclusivity".

The company said that for the year to September 30, 2014, Tikosyn had US sales of about $US150 million.

Mayne said that Pfizer filed against its subsidiary in the District Court for the Eastern District of Virginia and Southern District for New York seeking to prevent it from commercializing its abbreviated new drug application product prior to the expiration of the US Patent 6,124,363.

The US Patent Office said the patent, entitled 'Dofetilide polymorphs', was described as relating to "the substantially pure dofetilide polymorphs P162, P162a and P143, and to processes for the preparation of, compositions containing and to the uses of, such polymorphs" and was filed on November 16, 1999.

Mayne Pharma said that the legal action was filed under the provisions of the Hatch-Waxman Act, resulting in a stay of final FDA approval of the abbreviated new drug application for up to 30 months from the date the plaintiffs received notice of the abbreviated new drug application filing or until resolution of the matter before the court, whichever occurred sooner, subject to any other exclusivities.

The company said the FDA had granted priority review for this abbreviated new drug application and it had an agreement with a development partner to share equally the litigation costs and potential profits from the sale of the product.

Mayne fell three cents or 3.8 percent to 75.5 cents.

CIRCADIAN TECHNOLOGIES

Circadian annual general meeting passed all resolutions easily except the vote on the non-executive director share and options plan, which was opposed by 3,921,910 votes (15.9%) and supported by 20,783,879 votes (84.1%).

The company's most recent Appendix 3B said that Circadian had 74,943,471 shares on issue meaning that the opposition to the share and option plan amounted to 5.2 percent of the company's total shares on issue, sufficient to requisition extraordinary general meetings.

LIVING CELL TECHNOLOGIES

Living Cell's annual general meeting faced substantial opposition to the ratification of the company's recent $3 million placement at 6.08 cents a share (BD: Oct 8, 2014).

The remuneration report and the re-election of directors Roy Austin and Dr Bernard Tuch was passed overwhelmingly, but the issue of 49,410,392 placement shares was opposed by 20,408,796 votes (31.4%) and supported by 44,641,605 votes (68.6%).

The company's most recent Appendix 3B said that Living Cell had 406,406,165 shares on issue meaning that the opposition to the share issue amounted to 5.02 percent of the company's total shares on issue, sufficient to requisition extraordinary general meetings.

Living Cell was up 0.7 cents or 10 percent to 7.7 cents.

UNILIFE

Unilife's annual general meeting voted strong dissent against the grant to chief executive officer Alan Shortall of up to 4,000,000 shares of restricted stock.

Unilife said that Mr Shortall's share grant was opposed by 10,027,717 votes (23.47%) and supported by 32,693,354 votes (76.53%).

The company said that opposing votes amounted to 9.19 percent of the company's shares on issue, sufficient to requisition extraordinary general meetings.

The executive compensation package and the issue and transfer of shares under the 2009 stock inventive plan were opposed by about 19 percent of the vote, equivalent to about 7.6 percent of the company's shares on issue.

A vote to ratify the issue and sale of 7,308,800 shares of common stock, equivalent to 43,852,800 CHESS Depositary Interests (CDIs), under the agreement entered with Cantor Fitzgerald & Co was opposed by 4.41 percent of votes.

All directors were elected with significant majorities, with Mr Shortall and Jeff Carter facing opposition from 5.5 percent or more of votes cast.

Unilife fell 4.5 cents or 7.8 percent to 53 cents.