



Biotech Daily

Wednesday February 19, 2014

Daily news on ASX-listed biotechnology companies

- * **ASX, BIOTECH UP: PRANA UP 21%, UNIVERSAL BIOSENSORS DOWN 8%**
- * **INVION HIRES 3M FOR INHALERS, CAPITAL RAISING HALT**
- * **PRANA JUMPS 48% ON HUNTINGTON'S TRIAL RESULTS**
- * **VIRAX TO PURSUE CO-X-GENE**
- * **NUSEP RAISES \$450k**
- * **VICTORIA NAMES 11 'TECHNOLOGY CHALLENGES', 6 IN BIOTECH**
- * **BLUECHIIP APPOINTS LBD LIFE SCIENCES CHINA DISTRIBUTOR**
- * **PERPETUAL SELLS 99,153 MORE SIRTEX SHARES**
- * **BIOPROSPECT EGM BACKS HEARTLINK ACQUISITION**

MARKET REPORT

The Australian stock market climbed 0.29 percent on Wednesday February 19, 2014 with the S&P ASX 200 up 15.4 points to 5,408.2 points.

Fifteen of the Biotech Daily Top 40 stocks were up, 13 fell, 10 traded unchanged and two were untraded. All three Big Caps were up.

Prana was the best, up 19.5 cents or 21.3 percent to \$1.11 with 5.6 million shares traded.

Oncosil climbed eight percent; Antisense was up 7.7 percent; Benitec and Nanosonics were up more than four percent; Atcor, Cellmid, Medical Developments and Pharmaxis were up more than three percent; Ellex, Circadian and Mesoblast rose more than two percent; Clinuvel, Cochlear and Resmed were up one percent or more; with Alchemia, CSL, QRX and Sirtex up by less than one percent.

Universal Biosensors led the falls, down 3.5 cents or 8.1 percent to 39.5 cents, with 187,701 shares traded.

Ellex, Reva, Starpharma and Uscom lost five percent or more; Avita, Genetic Technologies and Prima fell more than four percent; Acrux was down 3.85 percent; Admedus, Impedimed and Patrys shed more than two percent; with Tissue Therapies down 1.4 percent.

INVION

Invion has hired 3M Drug Delivery Systems to develop inhalers for two respiratory drug assets, INV102 and INV104, and called a capital raising trading halt.

Invion requested the trading halt until February 21, 2014.

The company said that the Minneapolis Minnesota-based 3M Drug Delivery Systems would assess the feasibility of inhaled versions of INV102 or nadolol and INV104 or zafirlukast, delivered using 3M's proprietary pressurized metered dose inhalation technology.

Invion said the 3M contract would enable manufacture for toxicology studies and subsequent phase I studies, under an Invion-sponsored investigational new drug application with the US Food and Drug Administration and the companies intended to develop both drug candidates through to commercialization, if they proved to be safe and effective when delivered by an inhaler.

The company said that INV102 was a beta blocker, or beta adrenergic inverse agonist, used to treat high blood pressure and migraine, which was being "repurposed ... to treat chronic inflammatory airway diseases, including moderate to severe asthma, [chronic obstructive pulmonary disease] and cystic fibrosis".

Invion said it had two phase II clinical programs underway for oral nadolol, its smoking cessation study assessing the effectiveness of INV102 in the cessation of cigarette smoking in patients with chronic obstructive pulmonary disease, and a trial of nadolol in mild asthma, funded by the US National Institutes of Health.

The company said that 3M would develop an inhaled version of this drug for asthma and chronic obstructive pulmonary disease.

Invion said that INV104 was a leukotriene receptor antagonist, which worked by blocking the action of leukotrienes in the lungs, thereby preventing inflammation and narrowing of the airways.

The company said that the oral version of the drug, marketed as a generic and by Astra Zeneca as Accolate was a first-in-class anti-leukotriene and treatment for asthma, which in clinical trials had shown "an attractive safety and efficacy profile when delivered by inhalation at less than one percent of the oral dose.

Invion said it had an exclusive, worldwide licence to develop and commercialize all inhaled formulations and applications of zafirlukast.

The company said that the potential market size for its inhalers for the indications of chronic obstructive pulmonary disease and asthma was more than \$1 billion a year.

Invion chief executive officer Dr Greg Collier said that inhaled respiratory drugs might provide advantages over other delivery methods "due to their targeted delivery, smaller doses and fewer side effects".

"Effective treatment options with lower doses and side effects, represent an attractive therapeutic proposition, particularly for children with asthma," Dr Collier said.

"Invion's products are especially suitable for combination with existing respiratory drugs because of their unique anti-inflammatory profiles," Dr Collier said.

"Presuming we can demonstrate safety and efficacy with this delivery system, it will make both INV102 and INV104 even more attractive propositions," Dr Collier said.

Dr Collier said that the partnership with 3M helped to cement Invion's position as a promising biotechnology investment.

Invion last traded at 9.4 cents.

PRANA BIOTECHNOLOGY

Following the release of results from Prana's phase II trial of PBT2 for Huntington's disease the company jumped as much as 48.1 percent on the Nasdaq overnight. Prana said PBT2 met its primary endpoint of safety and tolerability (BD: Feb 18, 2014). The company said that the 250mg dose showed statistically significant improvement in one test of cognition, the trail-making test part B, but not on any other efficacy measure. Prana said there was a small but favorable signal in a key measure of functional capacity, in a disease that has no cure.

An article entitled 'An evidence-based approach in the treatment of Huntington's disease' published in 2012 in the journal Parkinsonism and Related Disorders, said that Huntington's disease was "a neurodegenerative disease with diverse symptoms for which there is no curative or disease-modifying treatment available".

"Currently, tetrabenazine is the only drug approved for [Huntington's disease] by a regulatory agency, and only for the treatment of chorea," the article said.

On the Nasdaq last night, Prana climbed \$US3.49 or 48.1 percent to \$US10.74, before closing up \$US2.85 or 39.3 percent to \$US10.10 (\$A11.19 equivalent to \$1.12 per ASX share) with 25,266,915 shares traded.

Today on the ASX, Prana spiked up 25.5 cents or 27.9 percent to \$1.17 before closing up 19.5 cents or 21.3 percent at \$1.11 with 5.6 million shares traded.

VIRAX HOLDINGS

Virax says it is likely to pursue its Co-X-Gene technology as a platform carrier for the development of anti-cancer drugs.

Virax said an independent review of the company's assets had been completed and emphasized the potential for exploiting the Co-X-Gene technology.

The company said that it was expecting a final comprehensive report, including advice from its patent attorneys, as well as technical and clinical development experts.

Virax executive chairman Dr Wayne Millen told Biotech Daily the interim review of the company was positive for the development of the Co-X-Gene technology.

The company said that it had licenced the Co-X-Gene technology to France's Transgene for use in its TG4010 immunotherapeutic which had completed a phase IIb clinical trial for non-small cell lung cancer with Novartis.

Virax said that Transgene and Sanofi were building a manufacturing platform dedicated to the production of viral vectors, as used by Transgene's TG4010.

The company said that the Sanofi and Transgene decision to invest in developing an industrial platform for the production of viral vectors through a broad range of technologies gave it confidence to explore the Co-X-Gene technology for the treatment of other life threatening diseases through the development of new and innovative drugs.

Virax said that once it received the final asset review report it would further explore the potential to develop the Co-X-Gene technology for the treatment of other cancers.

Virax was up 0.2 cents or 16.7 percent to 1.4 cents with 4.3 million shares traded.

NUSEP HOLDINGS

Nusep says it has raised \$450,000 through a placement at 7.1 cents a share.

Nusep said that the two investors were based in Singapore where there was "much support for the c and particularly for its innovative Prime technology".

The Prime technology separates currently unusable plasma for potential use.

Nusep was untraded at 5.5 cents.

VICTORIA GOVERNMENT

Victoria's Minister for Innovation Louise Asher has published 11 "technology challenges" as part of the State Government's \$16 million Driving Business Innovation Program.

"We are inviting eligible Victorian small to medium businesses to partner with Victorian Government to meet these technology challenges," Ms Asher said.

The challenges include blood glucose technology, non-invasive heart failure device, non-invasive lung imaging device, and a seizure sensor.

"This is part of the Victorian Coalition Government's \$16 million Driving Business Innovation Program that supports Victorian small to medium enterprises to get creative and develop new products and services to enhance government agency operations," Ms Asher said.

A Victoria Government media release said the Program provided businesses with access to funding, customers and collaborators, and access to Government agencies to co-develop new products or services.

The media release said that successful companies would be granted \$75,000 to undertake a feasibility study into their proposal, which would be assessed for a possible \$1 million grant to develop a proof-of-concept.

Ms Asher said the Driving Business Innovation Program built on a pilot program that supported businesses such as Dorsavi which developed Vimove to assess and treat lower back pain and Procept, which developed an automated system of audio sensor stations to measure the biodiversity health of farms, orchards and forests.

The 11 challenges selected by an independent panel include six in biotechnology: blood glucose technology sought by Melbourne Health to better identify and coordinate the blood glucose results of inpatients with diabetes;

a minimally invasive ventricular assist device wanted by Monash Health to allow more effective treatment of patients with congestive heart failure;

a novel non-invasive heart failure device required by Alfred Health to better identify fluid build-up in patients suffering chronic heart failure;

non-invasive real-time bedside lung imaging device sought by the Royal Children's Hospital to allow safer care of critically ill children;

a tissue template for burns wanted by Alfred Health as a synthetic soft tissue replacement to guide the repair and regeneration of skin tissues damaged by burn injury; and

a wearable seizure sensor for Melbourne Health to more accurately diagnosing seizure types in patients with epilepsy.

For more details go to: www.business.vic.gov.au/dbi.

BLUECHIIP

Bluechiip says that the Shanghai, China-based LBD Life Sciences will sell its tracking products in China.

Bluechiip acting chief executive officer Jason Chaffey said the agreement was "an important milestone for Bluechiip, providing the company with sales representation in one of the largest life sciences markets in Asia".

The company said that LBD was a spin-out from the Cambridge, England-based TTP Labtech and specialized in providing equipment for the biotechnology, pharmaceutical and research institutions in China.

LBD marketing manager Xiaoxin Jia said that Bluechiip "provides a tracking solution that has a clear differentiator in tracking and monitoring high-value samples where sample chain-of-custody is critical".

Bluechiip was up 0.1 cents or 1.2 percent to 8.6 cents.

SIRTEX MEDICAL

Perpetual and its subsidiaries have reduced their substantial shareholding in Sirtex from 5,730,328 shares (10.21%) to 5,631,175 shares (10.04%).

Perpetual said it sold the 99,153 shares on February 17, 2014 at \$14.42 a share.

Yesterday, Perpetual said it sold 657,290 shares between February 3 and 14, 2014 for prices ranging from \$14.00 to \$14.29, except for the sale of a single share for \$12.87 on February 13, 2014 (BD: Feb 18, 2014).

Sirtex was up nine cents or 0.6 percent to \$15.05 with 396,096 shares traded.

BIOPROSPECT

Bioprospect says its extraordinary general meeting has overwhelmingly supported resolutions relating to its Heartlink acquisition (BD: Jan 22, 2014).

Bioprospect said that all resolutions were passed with more than 804.2 million votes in favor and more than 1.1 million votes against.

Bioprospect was untraded at 0.2 cents.