



# Biotech Daily

Thursday July 17, 2014

*Daily news on ASX-listed biotechnology companies*

**\* ASX EVEN, BIOTECH DOWN:**

**- OPTISCAN UP 8%, ANTISENSE, CLINUVEL DOWN 10%**

**\* BURNET, DEAKIN BLOCK MALARIA PROTEINS**

**\* FDA APPROVES RHINOMED TURBINE SPORTS NASAL PLUGS**

**\* US ARMY \$3m FOR DELAYED NEUREN BRAIN INJURY TRIAL**

**\* DORSAVI VIPERFORM ADOPTED BY BRAZIL'S SÃO PAULO SOCCER CLUB**

## MARKET REPORT

The Australian stock market edged up 0.06 percent on Thursday July 17, 2014 with the S&P ASX 200 up 3.5 points to 5,522.4 points.

Eleven of the Biotech Daily Top 40 stocks were up, 22 fell, four traded unchanged and three were untraded. All three Big Caps fell.

Optiscan was the best, up 0.3 cents or 8.3 percent to 3.9 cents with 370,454 shares traded.

Prima and Prana climbed more than four percent; IDT was up 3.85 percent; Anteo and Impedimed rose more than two percent; Alchemia, Benitec and Tissue Therapies were up more than one percent; with Sirtex and Starpharma up by less than one percent.

Antisense and Clinuvel led the falls, both down 10.34 percent, to 13 cents and \$1.30, respectively, with 473,041 shares and 52,353 shares traded, respectively.

Avita lost 9.1 percent; Universal Biosensors fell 7.5 percent; Compumedics was down 6.45 percent; Oncosil and Osprey fell more than five percent; Bionomics was down 4.5 percent; Atcor, Cellmid, Patrys and Viralytics were down more than three percent; Analytica, Circadian, Ellex, Neuren and Phosphagenics shed more than two percent; CSL, GI Dynamics and Resmed were down more than one percent; with Acrux, Cochlear, Medical Developments, Mesoblast and Nanosonics down by less than one percent.

## BURNET INSTITUTE, DEAKIN UNIVERSITY

The Burnet Institute says that with Deakin University its researchers have blocked the export of proteins in red blood cells essential to malaria parasite survival.

In a media release, the Burnet Institute said that the two research groups were both able to block a gateway used by the parasite to export proteins using two different and novel techniques.

The study, entitled 'PTEx is an essential nexus for protein export in malaria parasites' was published in Nature on July 16, 2014 and the letter is available at:

<http://www.nature.com/nature/journal/vaop/ncurrent/full/nature13555.html>.

The Institute said that malaria parasites were able to modify red blood cells, enabling them to grow quickly by attracting more nutrients and sticking to walls of blood vessels, effectively hiding from the immune system so they could not be destroyed.

Burnet Institute director, chief executive officer and study co-author Prof Brendan Crabb said the world was "desperate for new treatment avenues as there is just one drug, artemisinin, left to treat the disease".

"This is a major advance in the quest for new malaria drugs," Prof Crabb said.

"If we can discover a drug that blocks the protein complex that comprises this gateway, you can effectively block the functioning of several hundred proteins," Prof Crabb said.

"This would be a very potent drug, which would kill the parasite, block the nutrients coming in, stop the red blood cells sticking to blood vessels which would boost the immune system's ability to deal with the parasites," Prof Crabb said.

Deakin University Medical School Prof Tania De Koning-Ward said the breakthrough was built on the research teams' earlier discovery of a pore, or gateway, believed to be used by the malaria parasite to export proteins into their host cell.

"We knew that this gateway existed but did not have solid evidence to show that it was the only pathway for hundreds of parasite proteins to access the host cell, until now," Prof De Koning-Ward said.

"Through the Deakin labs, and those at the Burnet Institute, we took genetic approaches to block different components of the gateway," Prof De Koning-Ward said.

"We each found that it was possible to stop the parasite proteins from being exported, which proved lethal to the parasite," Prof De Koning-Ward said.

The Burnet Institute said malaria was spread by mosquitoes and its most lethal form was caused by the parasite *Plasmodium falciparum*, with more than 200 million cases of malaria each year, killing more than half a million people, mainly children.

## RHINOMED

Rhinomed says that its Breatheassist Turbine sport nasal plug technology has been granted registration by the US Food and Drug Administration as a medical device.

Rhinomed said that the Turbine was an internal nasal dilator that increased airflow by an average of 38 percent and could assist athletes as a valuable solution to breathlessness during aerobic exercise.

Rhinomed chief executive officer Michael Johnson said the approval was "an important step in our plans to take the Rhinomed technology to the world's largest healthcare and sports markets".

"There are over 52 million members of health clubs in the USA and over 40 million cyclists," Mr Johnson said. "Registration granted to the Turbine by the US FDA allows us to have a much wider range of discussions with US based retailers and wholesalers."

Rhinomed was up 0.2 cents or 4.4 percent to 4.7 cents with 11.7 million shares traded.

## NEUREN PHARMACEUTICALS

Neuren says its US Army grant for NNZ-2566 for traumatic brain injury has been increased by about \$US3 million and extended to December 31, 2015.

Neuren said it expected to receive the additional amount over the next 12 months to assist third party costs for the phase II 'Intrepid' trial of NNZ-2566 for moderate to severe traumatic brain injury and the phase II trial of NNZ-2566 in mild traumatic brain injury or concussion.

The company said the extension and increase to the grant was critical to accelerate enrollment of subjects into the 260-subject Intrepid trial.

Neuren said that up to 10 additional US trauma centres would begin enrollment of subjects during the second half of 2014, after approval from the Human Research Protection Office of the US Army Medical Research and Materiel Command.

The company said that since June 1, 2014, 13 subjects had been enrolled into the Intrepid trial, taking the total to 162 subjects at July 16, 2014.

Neuren said it expected to complete enrollment by July 2015, instead of the end of 2014, and announce top-line results by the end of 2015, rather than by July 2015.

The company said that the blinded data to date showed that NNZ-2566 appeared to be safe and well-tolerated and that the mortality rate to date was lower than expected.

Neuren said that three biomarkers of brain injury were being collected during the first 72 hours following injury, beginning prior to administration of the study drug or placebo.

The company said the biomarkers would serve as a central component when it completed the Intrepid trial and analyzed the un-blinded trial data for signs of clinical efficacy.

Neuren said that it had presented data that the biomarkers were highly sensitive, specific and statistically significant predictors of clinical outcome.

The company said that the findings were expected to help control for underlying heterogeneity in the subject population, which historically in traumatic brain injury trials had been a challenge when assessing clinical efficacy.

Neuren executive chairman Dr Richard Treagus said the company was "pleased that the US Army has increased the level of support for our ongoing collaboration, as we aim to demonstrate the potential for NNZ-2566 to help mitigate the serious health and economic ramifications of both severe and mild traumatic brain injury in military and civilian communities".

Neuren fell 0.2 cents or 2.2 percent to 8.9 cents with 4.2 million shares traded.

## DORSAVI

Dorsavi said Brazil's São Paulo Football Club has adopted its Viperform spinal diagnostic to improve technique, performance and help prevent and manage player injury.

Dorsavi said the football club had more than 17 million fans and was the first South American team to adopt the wearable diagnostic technology.

The company said that the Club was using Viperform to screen players and evaluate their readiness for return to play through knee, hamstring and running assessments.

Dorsavi said São Paulo would promote the device by displaying the Viperform logo on their training t-shirts and banners at their training grounds.

Dorsavi was up one cent or 2.25 percent to 45.5 cents.