



Biotech Daily

Tuesday June 10, 2014

Daily news on ASX-listed biotechnology companies

*** ASX, BIOTECH EVEN:**

- GENETIC TECHNOLOGIES UP 8%, BIOTRON DOWN 17%

*** INVION DETAILS INV102 (NADOLOL) CLINICAL PROGRAM**

*** DR STEPHEN WOODFORD TAKES 13% OF USCOM**

MARKET REPORT

The Australian stock market edged up 0.1 percent on Tuesday June 10, 2014 with the S&P ASX 200 up 5.7 points to 5,469.7 points.

Fifteen of the Biotech Daily Top 40 stocks were up, 15 fell, eight traded unchanged and two were untraded.

Genetic Technologies was the best, up 0.3 cents or 8.1 percent to four cents with 175,327 shares traded.

Prana climbed 7.7 percent; Impedimed was up 5.6 percent; Acrux, Living Cell and Oncosil were up four percent or more; Antisense was up 3.6 percent; Alchemia, Anteo, Circadian, Clinuvel and Prima rose more than two percent; Bionomics, Nanosonics and Neuren were up more than one percent; with Resmed up 0.2 percent.

Biotron the falls, down two cents or 16.7 percent to 10 cents with 863,294 shares traded.

Universal Biosensors lost 8.1 percent; Analytica fell 7.8 percent; Patrys was down 5.7 percent; Admedus fell 4.2 percent; Cellmid, Osprey and Phosphagenics were down more than three percent; Benitec, CSL, Sirtex and Viralytics shed more than one percent; with Cochlear, GI Dynamics, Medical Developments, Mesoblast and Starpharma down by less than one percent.

INVION

Invion says that it expects INV102, or nadolol, to be used in combination with existing drugs to improve lung function in a range of diseases.

Speaking at an investor meeting in Melbourne, Invion's chief scientific officer, Dr Mitchell Glass said that nadolol would help repair inflamed epithelial tissue in the airways and was not intended to replace salbutamol for acute asthma attacks nor corticosteroids for chronic asthma conditions.

Dr Glass said that one of the reasons for investigating an inhaled version of the drug was that it was expected to be a commercial proposition when combined in a single inhaler with a corticosteroid for chronic asthma.

Dr Glass said that the current US National Institutes of Health-funded phase II trial of INV102 for mild asthma was a precursor for a trial for moderate to severe asthma and if the results were positive the company could expect further funding for a follow-on trial.

Dr Glass said that about half the patients had been recruited to the 60-patient randomized trial, which was expected to be completed by July 2015.

Dr Glass said that the 130-patient phase II trial of INV102 for smoking cessation had a primary endpoint of the number of cigarettes smoked per day over the last 28 days of the trial.

Dr Glass said that INV102 was intended to begin the repair of airways tissues before the subjects gave up smoking.

Dr Glass previously said that 15 percent of people failed to quit smoking because of the cough associated with airways damage, which was suppressed by smoking.

Today, Dr Glass said that it was difficult to assess how many people failed to give up smoking because of the cough issues, but said that "smokers' cough is a huge problem" and of the 50 percent of people who tried to give up smoking there were validated bio-markers including cough, spit, sleeplessness and cravings, and cough and spit were a portion of those who failed to give up cigarettes.

Dr Glass said that in terms of proceeding through the US Food and Drug Administration regulatory pathway for a combination of INV102 with a corticosteroid it was important to listen to the FDA's advice and obey that advice.

Dr Glass said that he had taken 50 investigational new drug applications through the FDA. University of Houston pharmacology professor Prof Richard Bond told the investor meeting that beta-blockers were contraindicated for both asthma and congestive heart failure, but when titrated had shown efficacy in a mouse model of asthma "acting as an inverse agonist".

Prof Bond said that in a mouse trial of three beta-blockers, nadolol was the only beta-blocker to show a positive effect.

Prof Bond said that the beta2 adrenoceptor had two signaling pathways, one known as the cAMP-dependent pathway and the other the beta-arr (Barr)-dependent pathway and nadolol blocked both pathways.

"We think the Barr pathway is critical for asthma," Prof Bond said.

"Shutting down the pathway is very important, but counter-intuitive," Prof Bond said.

"Of 16 or 18 beta-blockers, nadolol was the only one to work in the mouse model of asthma," Prof Bond said.

Dr Glass said that in 1998 carvedilol was a \$US40 million drug contraindicated for congestive heart failure, but after titration, by 2010 it was the \$US1.5 billion standard-of-care for the disease.

Dr Glass said that Invion's target was to take nadolol from contraindicated for chronic obstructive pulmonary disease to the standard-of-care.

Invion was up 0.6 cents or 9.7 percent to 6.8 cents.

USCOM

Dr Stephen Woodford says he has increased his substantial shareholding in Uscom from 2,721,475 shares (5.028%) to 10,268,475 shares (12.6%).

Uscom has previously said that Dr Woodford was a private anaesthetist and research physiologist working at the Brisbane Waters Private Hospital and the Australian School of Advanced Medicine at Macquarie University who bought his first Uscom diagnostic device in 2011 (BD: Jul 20, 2012).

Dr Woodford said he acquired the shares between July 27, 2012 and November 8, 2013 in both on-market purchases and in private placements, but did not disclose the price paid for the shares.

In 2012, Uscom raised \$952,200 in a placement at 12 cents a share (BD: Sep 5, 2012). Uscom was untraded at 26 cents.