Biotech Daily

Monday April 22, 2013

Daily news on ASX-listed biotechnology companies

*** ASX, BIOTECH UP: PATRYS UP 33%, GENETIC TECHNOLOGIES DOWN 9%**

*** WEHI: 'WEHI-539 SHUTS DOWN CANCER PROTEIN BCL-XL'**

*** PHARMAXIS PHASE III BRONCHIECTASIS RESULTS TRADING HALT**

*** MESOBLAST PHASE II STEM CELL DISC REPAIR 'POSITIVE TREND'**

*** PATRYS PAT-SM6 BINDS TO GRP78, LDL**

*** MEDICAL AUSTRALIA: $1m PA MANUFACTURE, SUPPLY CONTRACTS**

*** NEUREN AGM FOR 50m CHAIRMAN DR RICHARD TREAGUS SHARES**

*** LSQ APPOINTS PROF UWE HEINRICH, STEPHEN BURRILL AMBASSADORS**

MARKET REPORT

The Australian stock market was up 0.7 percent on Monday April 22, 2013 with the S&P ASX 200 up 34.7 points to 4,966.6 points.

Sixteen of the Biotech Daily Top 40 stocks were up, five fell, 13 traded unchanged and six were untraded. All three Big Caps were up.

Patrys was the best, up 0.8 cents or 33.3 percent to 3.2 cents with 38.3 million shares traded, followed by Antisense up 22.2 percent to 1.1 cents with 2.1 million shares traded.

Ellex climbed 8.6 percent; both Avita and Phosphagenics were up 4.2 percent; Impedimed, Tissue Therapies and Universal Biosensors were up more than three percent; Atcor, Cochlear and Mesoblast rose more than two percent; Alchemia, Nanosonics, Resmed and Viralytics were up more than one percent; with Acrux, CSL, Sirtex and Starpharma up by less than one percent.

Genetic Technologies led the falls, down 0.8 cents or 9.4 percent to 7.7 cents, with 165,866 shares traded.

Reva lost more 8.8 percent; Osprey and Neuren fell more than three percent; with Heartware down 0.4 percent.

THE WALTER AND ELIZA HALL INSTITUTE FOR MEDICAL RESEARCH

The Walter and Eliza Hall Institute says its staff have “tailor-made” a chemical compound that blocks a protein linked to poor responses to cancer treatment.
The Institute said that the development of the WEHI-539 compound was “an important step towards the design of a potential new anti-cancer agent”.
WEHI said that WEHI-539 was designed to bind and block the function of the BCL-XL protein that normally prevented cells from dying.
The research, entitled 'Structure-guided design of a selective BCL-XL inhibitor' was published online in the journal Nature Chemical Biology and an abstract is available at: http://www.nature.com/nchembio/journal/vaop/ncurrent/full/nchembio.1246.html.
The Institute said that the death and elimination of abnormal cells was an important safeguard against cancer development, but cancer cells often acquired genetic changes that allowed them to bypass cell death, which also reduced the effectiveness of anti-cancer treatments such as chemotherapy.
WEHI said that cancer cells could become long-lived by producing high levels of BCL-XL protein and high levels of BCL-XL were also associated with poorer outcomes for patients with lung, stomach, colon and pancreatic cancer.
The Institute said that WEHI-539 belonged to a class of chemicals called BH3-mimetics, which bound to the same region of BCL-XL or related proteins and two BH3-mimetics, called navitoclax (ABT-263) and ABT-199/GDC-0199 were currently in clinical trials for the treatment of cancer, particularly those of the blood and lymph glands, including leukaemia and lymphoma.
The institute said its staff including Dr Guillaume Lessene, Prof Keith Watson, Prof David Huang, Dr Peter Czabotar and Prof Peter Colman led the development of WEHI-539 in collaboration with colleagues at Roche subsidiary Genentech.
Dr Lessene said the development of WEHI-539 was an important milestone on the way to creating potential anti-cancer agents that act to restore cell death by inhibiting BCL-XL.
“Although WEHI-539 is not optimized for use in patients, it will be a very valuable tool for researchers to use to dissect how BCL-XL controls cancer cell survival,” Dr Lessene said.
“WEHI-539 is the first compound that our chemists have developed from scratch, using the three-dimensional structure of BCL-XL to build and refine its design,” Dr Lessene said.

PHARMAXIS

Pharmaxis has requested a trading halt “pending the analysis and announcement of the results … of the phase III bronchiectasis clinical trial of Bronchitol known as B305 trial”.
Pharmaxis said it had received the top line results, but the B305 trial was large and the results required detailed analysis.
In 2010, Pharmaxis said its second phase III trial of Bronchitol for cystic fibrosis narrowly missed its primary endpoint despite showing an average 8.2 percent lung function improvement over 26 weeks (BD: Jun 22, 2010).
Pharmaxis faced resistance from European regulators but eventually won market approval (BD: Oct 24, 2011) and last month the US Food and Drug Administration said it required a further trial of Bronchitol for cystic fibrosis (BD: March 19, 2013).
In late 2011, Pharmaxis completed recruitment of 474 patients in its European and US regulatory phase III study of inhaled Bronchitol for bronchiectasis, investigating the safety and efficacy of Bronchitol twice daily over 12 months and collect data on quality of life, lung function and other aspects of the condition. (BD: Dec 13, 2011)
Trading will resume on April 24, 2013 or on an earlier announcement.
Pharmaxis last traded at 31.5 cents.

MESOBLAST

Mesoblast says the six-month interim analysis of its phase II trial of mesenchymal precursor cells for inter-vertebral disc repair shows “a positive trend”.

Mesoblast chief executive Prof Silviu Itescu told Biotech Daily that although the numbers in each group in the interim analysis were small, the “demonstrated a positive trend”.

Mesoblast said that all 100 patients had completed six months follow-up an endpoint for data to be evaluated for progress to a phase III trial.

The company said it had completed a pre-specified interim analysis when 50 percent of the patients had completed six month follow-up visits, which showed that a single low-dose injection of mesenchymal precursor cells caused a significantly greater reduction in low back pain, significantly greater improvement in function and significantly greater treatment success compared to patients who received hyaluronic acid carrier alone, with no cell-related serious adverse events.

The company said that the 100 patients were enrolled across 13 US and Australian sites and were randomized to receive direct intra-disc injection of saline (n= 20), hyaluronic acid (n=20), six million mesenchymal precursor cells (MPCs) in hyaluronic acid carrier (n=30) or 18 million MPCs in hyaluronic acid carrier (n=30).

Mesoblast said patients underwent the outpatient injection for a single painful degenerated lumbar level and were evaluated at 30 days, three months and six months and would be followed for 36 months to evaluate long-term treatment effects.

The company said that patients in all four treatment arms demonstrated substantial improvement in pain and function compared to baseline.

Mesoblast said that patients injected with six million MPCs with hyaluronic acid demonstrated significantly greater improvement in back pain and function relative to baseline when compared with patients receiving hyaluronic acid alone with a mean reduction in back pain of 69 percent compared to 38 percent ($p = 0.013$) and mean improvement in function of 51 percent compared to 19 percent ($p = 0.038$), with similar trends for the six million MPC-treated patients compared to saline-treated patients.

Mesoblast said that the magnetic resonance imaging status of disc morphology remained unchanged at six months relative to baseline in all groups.

The company said that overall treatment success was defined as a patient meeting all of: clinically significant levels of improvement in back pain and function at six months compared to baseline; maintenance or improvement in neurological status from baseline; maintenance of disc morphology compared to baseline as evaluated by magnetic resonance imaging; and no serious adverse event or secondary intervention.

Mesoblast said that 10 patients (71.4%) treated with six million MPCs in hyaluronic acid were determined to be a treatment success compared with two patients (20%) in the hyaluronic acid alone group ($p = 0.036$) and three patients (30%) in the saline injected group ($p = 0.095$).

The company said that the six million MPC group showed significantly higher overall treatment success rates than the group receiving 18 million MPCs, due to both lower efficacy and higher incidence of adverse events with the higher dose.

Prof Itescu said the company was pleased with the interim results which “identified a low MPC dose that appears to be safe and effective for inducing sustained improvement in low back pain and function”.

Mesoblast said the complete phase II results would be presented by October 2013 and if consistent with the interim results, it would begin a phase III trial.

The company said that that while interim results were often indicative, they should not be taken as conclusive of the final trial results.

Mesoblast was up 12 cents or 2.2 percent to $5.49.

PATRYS

Patrys says its lead candidate PAT-SM6 has been shown in-vitro to bind to two structurally different targets, glucose-regulated protein 78 and low-density lipoprotein.

Patrys said that the research using cultured human cell lines showed that its monoclonal immunoglobulin M (IgM) antibody PAT-SM6 bound to an isoform of the glucose-regulated protein 78 (GRP78) which was present on the surface of tumor cells, but absent on normal tissues and low-density lipoprotein (LDL).

The company said that it appeared that the anti-cancer activity of PAT-SM6 was enhanced in the presence of low-density lipoprotein.

Patrys said that previous studies had shown that PAT-SM6 interacted with its target GRP78 and induced the killing of tumor cells through its multivalent nature and its ability to form many bond interactions with multiple target molecules clustered on the surface of tumor cells.

The company said that the combined strength of these multiple interactions was called 'avidity' and the results presented in the latest study suggested a similar avidity-based mechanism operates for the binding of PAT-SM6 to low-density lipoprotein and it was believed that this was responsible for more effective cell death.

The article, entitled 'Simultaneous Binding of the Anti-Cancer IgM Monoclonal Antibody PAT-SM6 to Low Density Lipoproteins and GRP78' was published in the Public Library of Science (Plos One), and is available at: http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0061239.

The company said that laboratory experiments designed to mimic the natural clustering of targets on the surface of cancer cells, showed strong and specific avidity-based interaction of PAT-SM6 to both targets.

Patrys said that GRP78 and low-density lipoprotein were found to compete for binding sites on the PAT-SM6 antibody despite having quite different structures.

The company said that the results supported the hypothesis that the biological action of PAT-SM6 in killing tumor cells depended on the multipoint attachment of targets to PAT-SM6 and the ability to interact simultaneously with low-density lipoprotein and multiple GRP78 molecules.

Patrys said the process triggered cell death in a more dramatic manner than the cell death caused by PAT-SM6's binding to GRP78 alone and the "unique pathway offers a promising mechanism for fighting cancer not offered by any other known therapies".

Patrys said the work was a collaboration with the University of Melbourne's Prof Geoff Howlett and the Parkville, Victoria-based Bio21 Institute's Dr Terry Mulhern and Dr Danny Hatters.

The company said that a Federal Government Australian Research Council grant was awarded to Patrys in November 2009 to support the collaboration.

Prof Howlett said the project used state-of-the-art modern technology to investigate the potential of a novel IgM antibody to specifically cause tumor cell death and the demonstrated the importance of avidity binding and multipoint attachment of low-density lipoprotein and GRP78 to PAT-SM6 in killing tumor cells.

Patrys chief executive officer Dr Marie Roskrow said the studies highlighted "the potential of natural human IgM antibodies in anti-cancer therapy and this unique mechanism of action, not used by any other known cancer therapy, further strengthens PAT-SM6's profile as an effective anticancer agent".

Patrys climbed 0.8 cents or 33.3 percent to 3.2 cents with 38.3 million shares traded.

MEDICAL AUSTRALIA

Medical Australia says it has broadened two original equipment manufacturer agreements worth about $1 million a year with unnamed device companies.
Medical Australia said it would manufacture eight new products for the two companies, which were existing customers, with first products to be shipped in May 2013.
Medical Australia managing director Mark Donnison said the companies were “two leading blue-chip medical device companies”.
“These two agreements demonstrate the strength and reliability of [Medical Australia] global supply chain and quality systems,” Mr Donnison said.
“The agreements will provide a meaningful stream of recurring revenue on an annual basis,” Mr Donnison said.
Medical Australia said it was continuing to build its revenue base through new original equipment manufacturer and supply agreements, allowing the company to continue to invest in the animal healthcare market.
“Our partnership with Medivet continues to strengthen with the ongoing rollout of regenerative animal stem-cell therapy progressing well throughout the UK and Ireland,” Mr Donnison said
Mr Donnison said said the company was “actively pursuing a number of opportunities in both the animal and human healthcare markets”.
Medical Australia was untraded at 0.8 cents.

NEUREN PHARAMCEUTICALS

Neuren shareholders will vote on resolutions to issue 49,615,385 loan funded shares and performance rights to executive chairman Dr Richard Treagus.
Dr Treagus was appointed earlier this year (BD: Jan 31, 2013).
Neuren said the 9,615,385 equity performance rights, were valued at a total of $300,000, at the five-day average closing price of 3.12 cents a share prior to Dr Treagus’ appointment, and would vest at no cost three years from his appointment.
The company said the 40,000,000 loan funded shares, worth $1,248,000 at the same average price of 3.12 cents a share would be awarded in two tranches, three years after Dr Treagus’ appointment.
Neuren said that 50 percent would vest “if the total shareholder return on the company’s ASX-listed ordinary shares equals or exceeds 75 percent over the vesting period”.
Dr Treagus told Biotech Daily that first tranche would only vest if the total shareholder value was 75 percent or more above the current value.
Neuren said that the second 50 percent would vest should the company proceed to a phase IIb or phase III trial “following a positive phase II clinical trial outcome and a national regulatory authority approves the initiation of such a trial or a material partnering or licencing transaction is concluded.
The company’s notice of meeting said it would also seek shareholder approval for the re-election of directors Dr Treagus and Dr Trevor Scott.
Neuren said that directors Dr Robin Congreve and Dr Doug Wilson would resign effective from the annual general meeting.
The meeting will be held at HWL Ebsworth, Level 14, Australia Square, 264-278 George Street, Sydney on May 20, 2013 at 12.30pm (AEST).
Neuren fell 0.1 cents or 3.3 percent to 2.9 cents.

LIFE SCIENCES QUEENSLAND

Life Sciences Queensland says that Prof Uwe Heinrich and Steven Burrill have been appointed as the organization's honorary ambassadors.

Life Sciences Queensland said that the appointments were announced by the Australian Government's representative and former Queensland Premier Peter Beattie at BIO 2013 in Chicago.

The organization said that Prof Heinrich and Mr Burrill would join current ambassadors Mr Beattie and Dr Carl Feldbaum in promoting the Queensland life sciences industry.

Life Sciences Queensland said that Prof Heinrich was the executive director of Germany's Fraunhofer Institute of Toxicology and Experimental Medicine and Mr Burrill was the founder and chief executive officer of San Francisco, California-based venture capital firm Burrill & Co.