Biotech Daily

Friday August 12, 2016

Daily news on ASX-listed biotechnology companies

*** ASX, BIOTECH UP: MESOBLAST UP 12%, IDT DOWN 9%**

*** PROTAGONIST RAISES $117m, LISTS ON NASDAQ FOR PEPTIDE DRUGS**

*** ADALTA IPO RAISES $10m FOR FIBROTIC DISEASES**

*** WEHI SHOWS ROLE OF MLKL, RIPK3 PROTEINS IN MOUSE NECROPTOSIS**

*** MEDICAL DEVELOPMENTS RECEIVES 1st FRENCH PENTHROX ORDER**

*** CM CAPITAL (TALU) DILUTED TO 18% OF OSPREY**

*** ADHERIUM RELEASES 25m VOLUNTARY ESCROW SHARES**

MARKET REPORT

The Australian stock market was up 0.42 percent on Friday August 12, 2016 with the ASX200 up 22.9 points to 5,530.9 points.

Eighteen of the Biotech Daily Top 40 stocks were up, 14 fell and eight traded unchanged. All three Big Caps were up.

Mesoblast was the best for the second day in a row, recovering a further 17 cents or 11.8 percent to $1.615 with 2.95 million shares traded.

Oncosil climbed 7.7 percent; Anteo and Pharmaxis improved more than six percent; Starpharma was up five percent; Admedus, Atcor, Compumedics and Prana were up four percent or more; Cellmid, Impedimed and Neuren were up more than three percent; Cochlear rose 2.6 percent; Acrux, Bionomics, Biotron, Clinuvel, Resmed and Viralytics were up one percent or more; with Airxpanders and CSL up by less than one percent.

IDT led the falls, down two cents or 8.7 percent to 21 cents with 545,480 shares traded.

Antisense and Living Cell lost more than seven percent; Genetic Technologies fell 5.6 percent; Ellex, Factor Therapeutics, Psivida, Universal Biosensors and Uscom were down more than three percent; Avita shed 2.2 percent; Reva lost 1.5 percent; with Medical Developments, Pro Medicus and Sirtex down by less than one percent.

PROTAGONIST THERAPEUTICS INC

University of Queensland spin-out Protagonist says it has raised $US90 million ($A117.1 million) and listed on the Nasdaq to develop peptide drugs.

The Milpitas, California and Brisbane-based Protagonist said it priced its initial public offer of 7,500,000 shares of common stock at $US12 a share, had listed on the Nasdaq under the code PTGX and underwriters had a 30-day option for up to 1,125,000 shares.

Protagonist founder and technology and alliances vice-president Dr Mark Smythe told Biotech Daily that the company had research facilities at Brisbane's Institute for Molecular Bioscience.

Dr Smythe said that Johnson & Johnson Development Corp and Lilly Ventures joined Canaan Partners, Pharmstandard, Adage Capital, Ra Capital, Foresite Capital and Melbourne's Starfish Ventures in a $US40 million raising in July 2015.

The company said that it "discovers and develops orally stable peptide drugs that act against known drug targets and diseases, giving patients a potential alternative to injectable-only biologic drugs".

Protagonist said that its initial lead product candidates, PTG-100 and PTG-200 had "the potential to transform the existing treatment paradigm" for irritable bowel disease a gastro-intestinal disease consisting primarily of ulcerative colitis and Crohn's disease.

The company said that PTG-100 was "a potential first-in-class oral alpha-4-beta-7 integrin specific antagonist peptide product candidate … being developed initially for moderate-to-severe ulcerative colitis" and had completed a phase I trial in healthy volunteers.

Protagonist said that PTG-200 was "a potential first-in-class oral interleukin-23 receptor antagonist … being developed initially for moderate-to-severe Crohn's disease" and was in investigational new drug application-enabling studies.

The company said it had several other assets in different stages of development.

Protagonist said that its independent chairman was Dr Harold E 'Barry' Selick, with chief executive officer Dr Dinesh Patel.

Last night on the Nasdaq, Protagonist closed down 30 US cents or 2.5 percent to $US11.70 with 1,631,952 shares traded.

ADALTA

Adalta says its initial public offering has raised $10 million at 25 cents a share to list on the ASX to develop drugs for fibrotic diseases (BD: Jul 7, 2016).

Adalta said it had "strong support from investors … the offer was oversubscribed" and it expected to begin trading on the ASX on August 22, 2016 under the code 1AD.

The company said that funds would be used to complete the first phase of a clinical study aimed at validating its lead candidate AD-114, which showed "promise in treating fibrotic diseases, notably idiopathic pulmonary fibrosis, for which current therapies have limited efficacy and where there is a high-unmet medical need".

Adalta said that AD-114 was developed from its platform that produced human proteins which mimicked the shape of shark antibodies and engineers their key antigen binding and stability features to create unique compounds, known as I-bodies, for therapeutic intervention in disease.

In July, Adalta chief executive officer Samantha Cobb told Biotech Daily that I-set molecules were one of four groups – the intermediate group - of immunoglobulin or immunoglobulin-like domains and Adalta developed the novel protein and called it I-body.

Today, Ms Cobb said the funds would "expedite our first candidate into phase I human clinical trials for the lung disease idiopathic pulmonary fibrosis".

THE WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH

The Walter and Eliza Hall Institute says its researchers have shown the role played by the proteins MLKL and RIPK3 as regulators of the necroptotic process in mice.

WEHI said that necroptosis was a form of regulated cell death and that blocking RIPK3 or MLKL stopped cells from dying by necroptosis, whoch could be useful for the treatment of inflammatory diseases and cancer.

The research, entitled 'The Pseudokinase MLKL and the Kinase RIPK3 Have Distinct Roles in Autoimmune Disease Caused by Loss of Death-Receptor-Induced Apoptosis' was published in the journal Immunity and an abstract is available at: http://www.cell.com/immunity/fulltext/S1074-7613(16)30289-8.

The Institute said the research led by Dr Silvia Alvarez-Diaz and Prof Andreas Strasser, with the Memphis Tennessee-based St Jude Children's Hospital Prof Doug Green had shown "the important and different role played by the proteins MLKL and RIPK3 as regulators of the necroptotic process in a pre-clinical model of autoimmune disease".

Dr Alvarez-Diaz said that apoptosis was a well-known form of programmed cell death as a process to stave off cancers, autoimmune disorders and other diseases, less was understood about necroptosis.

"Necroptosis, a form of regulated necrosis [or] harmful cell death, has gained increased interest in the scientific community because of its implication in several diseases, mainly severe inflammatory conditions, including pancreatitis or inflammatory bowel disease and possibly in cancer development," Dr Alvarez-Diaz said.

Dr Alvarez-Diaz said that the RIPK3 and MLKL proteins played "a vital role controlling the death of cells by necroptosis".

Dr Alvarez-Diaz said that both contributed to necroptotic cell death but RIPK3 could also contribute to apoptosis and the production of cytokines, molecules that induce inflammation and "this was an important difference to take into account when developing new therapies that target necroptosis".

"Blocking RIPK3 or MLKL stops cells from dying by necroptosis and can be useful for the treatment of inflammatory diseases or even cancer," Dr Alvarez-Diaz said.

"For this reason, a lot of research is currently being done to develop inhibitors of these molecules to be used in the clinic," Dr Alvarez-Diaz said.

"We need to know how differently these two molecules behave in a similar context in order to know which one is the best target for a new drug, including what the possible side effects of targeting either of these proteins may be," Dr Alvarez-Diaz said.

WEHI said that the researchers compared the effect of blocking the activity of RIPK3 or MLKL in a mouse model of the rare genetic autoimmune disease, autoimmune lympho-proliferative syndrome (ALPS) for the first time.

"Defects that cause this disease also contribute to autoimmune diseases more generally," Dr Alvarez-Diaz said. "In ALPS some of the processes that control cell death do not work correctly and the body cannot properly regulate the number of lymphocytes, a type of white blood cells, and they accumulate in the lymph nodes, liver and spleen resulting in the pathological enlargement of these organs."

"We compared the effect of preventing necroptotic cell death by blocking RIPK3 or MLKL side by side in an ALPS predisposing context and found that while MLKL has no major effects, RIPK3 worsens the development and progression of this disease, mainly due to the non-necroptotic functions of RIPK3," Dr Alvarez-Diaz said.

"By understanding how differently these molecules work and the different outcomes that we get by targeting each of these molecules we could develop new drugs that activate or deactivate the pathway and could be used for the treatment of a range of human diseases," Dr Alvarez-Diaz said.

MEDICAL DEVELOPMENTS INTERNATIONAL

Medical Developments says it has received its first Penthrox analgesic order from distributor Mundipharma for France and expects an order for Belgium, shortly.
Medical Developments said the roll out and acceptance of the Penthrox inhaled methoxyflurane analgesic in the UK, Republic of Ireland and the EU was “going to plan”.
Medical Developments chief executive officer John Sharman said the French order was “the largest single order in our company’s history”.
The company’s UK and Ireland marketing partner Galen said that South East Coast Ambulance Service was using administering Penthrox to patients.
Medical Developments said that the Ambulance Service had completed an evaluation and published preliminary results in the publication Ambulance Today.
The company said that the full evaluation was expected to be published and reviewed by the Joint Royal Colleges Ambulance Liaison Committee, “which should result in a positive recommendation and adoption by all [UK] ambulance trusts.
“In addition to the UK, Ireland, France and Belgium we are confident of introducing Penthrox to the other European countries during 2017 and confirming our expectations in terms of the market penetration and uptake of Penthrox,” Mr Sharman said.
Medical Developments fell five cents or 0.8 percent to $5.90 with 194,193 shares traded.

OSPREY MEDICAL

CM Capital says its 34,040,899 Chess depositary interest (CDI) holding in Osprey has been diluted from 22.1 percent to 17.7 percent.
The Brisbane, Queensland-based CM Capital, now known as Talu Ventures, said that the shares were held by the VT4A fund and VT4B fund as trustees for CM Capital Venture Trusts 4A and 4B.
Last week, Osprey said it had raised $28 million at 28 cents per Chess depositary interest (CDI) and would offer a share plan to raise a further $1 million (BD: Aug 4, 2016).
Osprey was unchanged at 32 cents.

ADHERIUM

Adherium says that 24,924,886 shares will be released from voluntary escrow on August 26, 2016.
Adherium said that the shares were included in the 131,701,904 shares quoted on the ASX.
The company’s most recent Appendix 3B new share issue said there were a further 35,322,804 shares not quoted on the ASX and in escrow until August 26, 2017.
Adherium was up one cent or 2.1 percent to 48 cents.