



# Biotech Daily

Thursday April 24, 2014

*Daily news on ASX-listed biotechnology companies*

- \* **ASX UP, BIOTECH EVEN: ANTEO UP 11%, QRX DOWN 25%**
- \* **TRI: 'BLOCKING E-SELECTIN PROTECTS HSC FROM CHEMOTHERAPY'**
- \* **VIRAX LOOKS FOR CO-X-GENE OPPORTUNITIES**
- \* **ANALYTICA SETS RIGHTS ISSUE DATES**

## MARKET REPORT

The Australian stock market was up 0.24 percent on Thursday April 24, 2014 with the S&P ASX 200 up 13.2 points to 5,531.0 points.

Ten of the Biotech Daily Top 40 stocks were up, 11 fell, 11 traded unchanged and eight were untraded.

Anteo was the best, up two cents or 10.5 percent to 21 cents with 3.6 million shares traded.

Admedus climbed four percent; Antisense, Medical Developments, Neuren, Osprey, Resmed and Tissue Therapies were up three percent or more; Cochlear and Nanosonics were up more than one percent; with Mesoblast and Starpharma up by less than one percent.

QRX led the falls for the second day in a row, down a further 3.5 cents or 25 percent to 10.5 cents, with 20.7 million shares traded.

Atcor and Bionomics lost more than seven percent; Prima was down 5.4 percent; Pharmaxis fell 3.3 percent; Benitec and Genetic Technologies were down more than one percent; with CSL, GI Dynamics, Psivida and Sirtex down by less than one percent.

## TRANSLATIONAL RESEARCH INSTITUTE

Translational Research Institute researcher Prof Ingrid Winkler says blocking endothelial selectin protects haematopoietic stem cells from chemotherapy.

Prof Winkler told Biotech Daily that active haematopoietic stem cells were necessary for replenishing the blood and immune systems and were damaged by chemotherapy.

Prof Winkler said that the discovery that endothelial selectin (E-selectin) activated the cells and blocking E-selectin could allow the haematopoietic stem cells to remain dormant meant that the haematopoietic stem cells could be protected when a patient had chemotherapy.

Prof Winkler said that haematopoietic stem cells responded to general physiological damage including stresses like chemotherapy and radiation, with E-selectin the molecule that activated the cells.

She said that if E-selectin was blocked then the haematopoietic stem cells remain dormant and following chemotherapy they would be re-awakened when the E-selectin block was removed.

Prof Winkler said she searched for a synthetic mimetic antagonist, or blocking, molecule for E-selectin and found the Gaithersburg, Maryland-based Glycomimetics' GMI-1070, which was then used in a mouse study.

The research, entitled 'Vascular niche E-selectin regulates haematopoietic stem cell dormancy, self renewal and chemoresistance', was published in Nature Medicine in 2012.

An abstract is at: <http://www.ncbi.nlm.nih.gov/pubmed/23086476>.

Prof Winkler said that GMI-1070 was acquired from Glycomimetics in 2013 by Pfizer following a phase II trial for sickle cell crisis and the US Food and Drug Administration had approved a Glycomimetics phase I trial using the next-generation GMI-1271.

Prof Winkler said that Glycomimetics was hoping to move to a phase II cancer trial "quite quickly", possibly in 2014.

The Nature Medicine article said that chemotherapy-induced bone marrow suppression was a clinical problem and that reducing the myelo-suppressive effect of chemotherapy could result in less infection and less of a requirement for blood product and hospital support.

"Our study of how the vascular niche regulates stem-cell behavior suggests a new approach to alleviate these potentially life-threatening complications of chemotherapy," the article said.

Two anatomical niches for haematopoietic stem cells (HSCs) have been reported in the bone marrow, but a distinct function for each of these niches remains unclear, the article said.

"E-selectin promotes HSC proliferation and is a crucial component of the vascular niche," the article said. "Deletion or blockade of E-selectin enhances HSC survival three-fold to six-fold after treatment of mice with chemotherapeutic agents or irradiation and accelerates blood neutrophil recovery."

"As bone marrow suppression is a severe side effect of high-dose chemotherapy, transient blockade of E-selectin is potentially a promising treatment for the protection of HSCs during chemotherapy or irradiation," the Nature Medicine article said.

"... transient administration of a small synthetic E-selectin antagonist blocks proliferative signaling by the vascular HSC niche, promoting HSC quiescence, HSC self renewal and increased survival after treatment with chemotherapeutic agents in-vivo," the article said.

"We found that the expression of E-selectin is greatly increased during the recovery phase after irradiation when HSCs divide to reconstitute haematopoiesis, supporting the notion that E-selectin promotes HSC proliferation in regenerating or inflamed bone marrow," the article said.

## VIRAX HOLDINGS

Virax says that following a review of its Co-X-Gene technology, it will appoint a gene technology expert to identify opportunities.

Virax said that Melbourne consultancy Easington Pty Ltd conducted the review to outline potential applications of the Co-X-Gene platform and help formulate a strategic plan and explore collaboration opportunities.

The company said that licencing partner the Strasbourg, France-based Transgene SA's immunotherapeutic product TG4010 for non-small cell lung cancer, used the Co-X-Gene platform (BD: Mar 11, 2010; May 14, 2012; Feb 7, 2014).

Virax said that the gene technology expert would assist in identifying opportunities including potential medical conditions, focusing on cancer, including consideration of potential antigens and cytokines; potential biomarkers for pre-selecting tailored patient group; intellectual property considerations; and potential veterinary applications.

The company said that it would convene a scientific advisory board to advise on technical considerations and specific project opportunities.

Virax said it would apply for non-diluting funding grants to develop the opportunities.

Virax was unchanged at one cent with 1.1 million shares traded.

## ANALYTICA

Analytica has released the timetable for its underwritten, one-for-15, non-renounceable rights issue at 2.4 cents a share to raise up to \$1.2 million.

Earlier this week, Analytica said it had raised \$1.8 million through a placement at 2.4 cents a share (BD: Apr 22, 2014).

The company said that the record date was May 1, the offer would open on May 6 and close on May 15, 2014.

Analytica said the funds raised would be used to expand marketing activities in Australia and North America for its intra-vaginal Pericoach pelvic floor strength training technology, expected to be launched by July 2014.

The company said that lead manager Patersons Securities would underwrite the rights offer.

Analytica fell 0.3 cents or 9.1 percent to 3.0 cents with 17.0 million shares traded.