



# Biotech Daily

Thursday July 5, 2018

*Daily news on ASX-listed biotechnology companies*

- \* **ASX, BIOTECH UP: DIMERIX UP 7%; PRESCIENT DOWN 9%**
- \* **AUSCANN RAISES \$33m, PLAN FOR \$8m MORE**
- \* **INVION PHOTOSOFT KILLS OVARIAN CANCER IN-VITRO**
- \* **PATRY'S PAT-DX1 ENTERS TRIPLE NEGATIVE BREAST CANCER IN MICE**
- \* **RESONANCE PARTNERS WITH BLACKFORD FOR IMAGING**
- \* **NEUROTECH REQUESTS 'TRIAL RESULTS' TRADING HALT**
- \* **NOXOPHARM IDRONOXIL KILLS BRAIN CANCER CELLS IN-VITRO**
- \* **PAUL COZZI INCREASES, DILUTED TO 6% OF CARDIEX (ATCOR)**
- \* **MMJ'S HARVEST ONE APPOINTS GRANT FROESE CEO**

## MARKET REPORT

The Australian stock market was up 0.52 percent on Thursday July 5, 2018 with the ASX200 up 32.1 points to 6,215.5 points.

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

Dimerix was the best, up 0.7 cents or 7.1 percent to 10.5 cents with 1,000 shares traded.

Oncosil and Uscom climbed more than six percent; Admedus and LBT were up more than four percent; Ellex, Immutep and Osprey were up more than three percent; Compumedics, Cyclopharm, Factor Therapeutics and Prana rose more than two percent; Orthocell and Telix were up more than one percent; with Cochlear, CSL, Cynata, Medical Developments and Resmed up by less than one percent.

Prescient led the falls, down one cent or 9.1 percent to 10 cents with 768,878 shares traded.

Avita lost 5.6 percent; Bionomics and Pharmaxis fell more than four percent; Starpharma was down three percent; Impedimed, Mesoblast, Polynovo and Volpara shed one percent or more; with Nanosonics, Opthea, Pro Medicus and Sirtex down less than one percent.

## AUSCANN

Auscann says it has raised \$33.4 million in a placement at \$1.10 and hopes a share plan will raise a further \$8 million.

Auscann said that the placement to North American and Australian institutional and sophisticated investors was at an 11.7 percent discount to the 15-day volume weighted average price prior to the date the placement price was agreed, which was \$1.245.

The company said the funds would be used for cannabinoid research and development and clinical studies, expansion of its operations in Chile and Australia, medical outreach programs in new markets and working capital.

Auscann said that Canaccord Genuity (Australia) was the lead manager and bookrunner to the placement and major shareholder, Canopy Growth Corp would increase its holding to 11.2 percent following completion of the placement.

The company said that investors in the placement would receive one option for every two shares subscribed, exercisable at \$1.465 within 30 months, but if the closing price was \$2.25 or greater for 10 consecutive trading days, it had the right to force their exercise.

Auscann said that share plan details would be announced when the placement completed. Auscann fell nine cents or seven percent to \$1.19 with 1.7 million shares traded.

## INVION

Invion says studies conducted with the Melbourne-based Hudson Institute have found its Photosoft photo-dynamic therapy kills ovarian cancer cells in-vitro.

Invion said its Photosoft chlorophyll-based photo-dynamic therapy caused “efficient and highly effective” cancer cell destruction in human and mouse ovarian cancer cells in two-dimensional and three-dimensional organoid culture in-vitro, achieving 100 percent cell death “in a matter of minutes” following light activation.

The company said that in the absence of light activation Photosoft “was completely non-toxic to cells, highlighting its potential for clinical application without inducing non-specific photo-toxicity, a major impediment experienced in the clinical application of other photo-sensitizer compounds”.

Invion said the studies investigated the spectral characteristics, cellular uptake and clearance, intracellular localisation, dark and photo-toxicity of Photosoft.

The company said its photo-dynamic therapy combined a photo-sensitizing compound and light to generate destructive reactive oxygen species and was an “effective strategy for tumor tissue ablation”.

Invion said that the efficiency of a photo-sensitizer was “one of the main factors for determining its feasibility as a photo-dynamic therapy”.

Invion said that “whilst several photo-sensitizers are clinically approved, some have undesirable properties including extreme photo-sensitivity, poor water solubility and inadequate selectivity, limiting their clinical application”.

The Melbourne-based Hudson Institute’s Dr Andrew Stephens said “the Photosoft characterization studies demonstrate that Photosoft efficiently produces reactive oxygen species to destroy tumor cells in-vitro and that modulation of light energy can be used to control the mechanism of induced cell death”.

Invion chief executive officer Dr Greg Collier said “ovarian cancers have a greater than 70 percent five-year mortality rate, and patients almost universally develop recurrent, chemo-resistant disease”.

“This data lays the groundwork for ongoing pre-clinical trials of the Photosoft technology as an indication for chemo-resistant, solid ovarian tumors,” Dr Collier said.

Invion was up half a cent or 15.15 percent to 3.8 cents with 135.6 million shares traded.

## PATRY'S

Patry's says that PAT-DX1 as a single agent "localizes into xenograft triple negative breast cancer tumors in mice".

Patry's said that preliminary pharmacokinetics data for its drug candidate PAT-DX1, a humanized version of the 3E10 anti-DNA antibody, by Yale School of Medicine Dr James Hansen and Dr Jiangbing Zhou PAT-DX1 ability to localizes into xenograft triple negative breast cancer tumors in mice as a single agent.

The company said that mice with tumors were treated with systemic administration of PAT-DX1 and at varying time points afterwards tumors were excised and examined for the presence of PAT-DX1.

Patry's said that preliminary pharmacokinetic analysis indicated that PAT-DX1 exhibited significant tumor penetration eight hours after administration.

Patry's chief executive officer Dr James Campbell said the company was "very pleased that PAT-DX1 is confirmed to target [triple negative breast cancer] tumors, with clear tumor penetration eight hours after administration".

"These results provide a foundation for more extensive studies of the effect of PAT-DX1 on [triple negative breast cancer], both as a single agent and in combination with various drugs such as DNA-damaging chemotherapies and [poly adenosine diphosphate ribose polymerase] inhibitors," Dr Campbell said.

"More complete pharmacokinetic profiling of PAT-DX1 in [triple negative breast cancer] is ongoing and will be disclosed when complete," Dr Campbell said.

Patry's was up 0.1 cents or two percent to 5.2 cents with 31.9 million shares traded.

## RESONANCE HEALTH

Resonance says it has an alliance partner agreement with the Edinburgh, Scotland-based Blackford Analysis allowing Blackford customers to use its imaging systems.

Resonance said that Blackford provided a single platform enabling healthcare providers to access and manage medical image analysis applications and artificial intelligence algorithms, in the US, Canada, UK, Australia, and New Zealand.

The company said that the Blackford platform allowed healthcare providers "to use imaging information efficiently and reduce the cost of care while improving diagnostic confidence and patient outcomes".

Resonance said the Blackford platform integrated directly with picture archiving and communication systems used by hospitals.

Resonance chief executive officer Alison Laws told Biotech Daily that her company's Ferrismart neural network, artificial intelligence analysis of liver iron concentration, using the Ferriscan magnetic resonance imaging-based system would integrate with the Blackford platform, allowing access from existing clinical workflows "to improve diagnostic confidence, reduce the cost of care and add clinical value".

The company said that the agreement gave Blackford the right to promote, market, sell, distribute and licence Ferrismart directly and/or via resellers.

Resonance said that its Ferriscan and Hepafat-Scan products were also listed in the agreement and it could authorize Blackford to integrate those products.

Ms Laws said that "integration into existing radiology workflows will mean seamless accessibility for our products across a new customer base, allowing us to provide future customers with the highest quality data for use in the clinical management of patients".

Resonance was up 0.1 cents or 4.2 percent to 2.5 cents.

### NEUROTECH INTERNATIONAL

Neurotech has requested a trading halt “pending an announcement regarding the release of the clinical trial results”.

Trading will resume on July 9, 2018 or on an earlier announcement.

Neurotech last traded at 16 cents.

### NOXOPHARM

Noxopharm says a collaboration with the Sydney-based Children’s Cancer Institute shows idronoxil kills children’s diffuse intrinsic pontine glioma cells, in-vitro.

Noxopharm said that the pre-clinical laboratory data indicated that idronoxil, the active drug in its NOX66, increased the killing effect of radiation on diffuse intrinsic pontine glioma.

Noxopharm chief scientific officer Dr John Wilkinson said that the “data fits in with other data showing idronoxil increasing the killing effect of radiation on lung and prostate cancer cells by two or three-fold”.

“The radio-enhancing effect of idronoxil therefore is looking to be independent of cancer type,” Dr Wilkinson said.

“On that score, it is worth noting that [diffuse intrinsic pontine glioma] arises in the brain’s glioma [sic] cells, or cells that provide the support structure of the brain...and these are the same cells involved in glioblastoma multiforme, the most common form of aggressive brain cancer in adults,” Dr Wilkinson said.

“That feeds into our broader objective of using NOX66 to sensitize primary brain cancer such as [glioblastoma multiforme] in adults, as well as secondary brain cancers, in a way that allows the radiotherapy to be more effective, but without jeopardizing the safety of healthy brain tissue,” Dr Wilkinson said.

Noxopharm fell two cents or 3.1 percent to 62 cents.

### CARDIEX ( FORMERLY ATCOR MEDICAL)

The South Bexley, Sydney-based Paul Cozzi says he has increased his substantial holding in Cardiex but been diluted from 18,790,054 shares (6.69%) to 32,928,066 shares (6.20%).

Mr Cozzi said that between January 15 and June 14, 2018 he bought 14,138,012 shares for \$334,259 or 2.36 cents a share.

Cardiex was up 0.2 cents or 7.4 percent to 2.9 cents with 2.1 million shares traded.

### MMJ PHYTOTECH

MMJ says its 30.7 percent subsidiary Harvest One has appointed Grant Froese as chief executive officer.

MMJ fell half a cent or 1.5 percent to 32 cents.