



Biotech Daily

Wednesday December 9, 2015

Daily news on ASX-listed biotechnology companies

- * **ASX, BIOTECH DOWN: OPTISCAN UP 17%, USCOM DOWN 16%**
- * **STARPHARMA RAISES \$32m, SHARE PLAN FOR \$3m MORE**
- * **AVITA RECELL STUDY: 'REDUCES HOSPITAL STAY 63%'**
- * **PHYLOGICA PHYLOMER-OMOMYC KILLS LYMPHOMA 600% IN-VITRO**
- * **INVION PLAN, PLACEMENT RAISE \$1.3m**
- * **CANADA PATENT FOR ORTHOCELL BIO-SCAFFOLDS, TENOCYTE COMBO**
- * **IAN MANN LENDS OPTISCAN \$300k, TAKES BOARD SEAT**
- * **IMPEDIMED: 'US BREAST CANCER SURVIVOR GUIDELINE PUBLISHED'**
- * **QRX ADMINISTRATORS EXECUTE DEED OF COMPANY ARRANGEMENT**
- * **BENITEC CEO DR PETER FRENCH 'STEPS DOWN'**
- * **STEPHEN ROBERTS REPLACES CRYOSITE DIRECTOR CHRISTINA BOYCE**
- * **PROGEN CHANGES DIRECTORS AHEAD OF TBG MERGER**
- * **GOLDMAN SACHS BELOW 5% OF NANOSONICS**

MARKET REPORT

The Australian stock market fell 0.55 percent on Wednesday December 9, 2015 with the ASX200 down 28.15 points to 5,080.5 points. Fourteen of the Biotech Daily Top 40 stocks were up, 18 fell, six traded unchanged and two were untraded.

Optiscan was the best, up half a cent or 17.2 percent to 3.4 cents, with 245,328 shares traded. Mesoblast recovered 7.4 percent; Actinogen was up 6.7 percent; Antisense and Orthocell climbed more than five percent; Impedimed was up 4.9 percent; Admedus, Circadian and Oncosil were up more than three percent; Living Cell, Medical Developments and Reva rose more than two percent; Clinuvel and Viralytics were up more than one percent; with CSL and Resmed up by less than one percent.

Uscom led the falls, down three cents or 15.8 percent to 16 cents with 16,567 shares traded. Cellmid lost 11.1 percent; Starpharma fell 9.6 percent; Neuren shed 8.7 percent; Bionomics was down 7.1 percent; Benitec, Compumedics and Prana fell more than four percent; Genetic Technologies was down 3.6 percent; Acrux, Pro Medicus and Universal Biosensors shed more than two percent; with Biotron, Cochlear, Ellex, IDT, Nanosonics, Pharmaxis and Sirtex down more than one percent.

STARPHARMA

Starpharma says it has raised \$32 million in a placement at 73 cents, a 6.4 percent discount to the closing price before its December 7, 2015 trading halt.

Starpharma said the funds from the placement to domestic and international institutional, sophisticated and professional investors would be used for its dendrimer enhanced product (DEP) docetaxel phase II clinical program and to accelerate further dendrimer drug delivery candidates.

The company said that the funds would support the licencing, approvals and launches of the Vivagel bacterial vaginosis symptomatic relief product and the completion of the phase III trials of Vivagel for prevention of recurrent bacterial vaginosis.

The company said it would offer a share purchase plan to raise a further \$3 million, with a record date of December 8, opening on December 16 and closing on January 15, 2016.

Starpharma chief executive officer Dr Jackie Fairley said that the company's "portfolio of products has matured substantially over the last few years [and the] funding places the company in a strong position to accelerate the commercialization of our technologies with the advancement of the clinical programs of DEP docetaxel, entry of new DEP candidates into the clinic and the licencing and launch of Vivagel BV".

Starpharma said that Bell Potter Securities and Canaccord Genuity acted as joint lead managers to the placement.

Starpharma fell 7.5 cents or 9.6 percent to 70.5 cents with 2.3 million shares traded.

AVITA MEDICAL

Avita says that a 12-case study shows a 63 percent reduction in length of hospital stay for patients with extensive burn injuries when treated with Recell.

Avita said that the American Burn Association's National Burn Repository database historic average length of stay was 2.7 (+/- 0.4) days per percent of total body surface area, compared to 1.0 (+/- 0.3) days for the Recell treated group, which had a range of total body surface area injured of 52 percent to 75 percent.

The company said that the data was presented by the Winston-Salem, North Carolina-based Wake Forest Baptist Medical Centre's Dr Ryan Rebowe at the Southern Region Burn Conference in Dallas Texas, November 20- 22, 2015.

Avita said that the presentation was entitled 'The Use of Recell in the Treatment of Large Burns: A Single Centre Experience'.

The company said that the 12 cases included eight adult and four paediatric cases of large, thermal burns treated using Recell as an adjunct to grafting.

Avita said that the use of Recell in conjunction with autografting appeared to reduce risks of graft loss and poor functional and aesthetic outcomes commonly associated with widely expanded meshed autografts, enabling the surgeons to achieve primary closure for these patients of up to 12,000 cm² in a single procedure that would ordinarily require multiple, staged operations.

The company said that the reduction in multiple, staged operations meant that patients' burn injuries healed earlier and they could be discharged from hospital.

Avita said that the US Food and Drug Administration had approved a doubling of its compassionate use investigational device exemption program to 24 patients with insufficient healthy skin for standard grafting of their injury (BD: Oct 5, 2015).

Avita research and technology vice-president Andrew Quick said the reduction in hospital stay, saved "both patients and the healthcare system valuable time and resources".

Avita was unchanged at 9.7 cents.

PHYLOGICA

Phylogica says that independent in-vitro studies show that linking a cell-penetrating Phylomer to a novel pro-death peptide led to potent killing of lymphoma cancer cells.

The company said that a combination of the pro-death peptide and a drug targeting the Myc oncoprotein Omomyc, delivered inside cells improved killing activity of each drug by up to 600 percent, achieving "the most potent activity ever reported for drugs targeting the Myc oncoprotein".

Phylogica said that with Melbourne's Olivia Newton-John Cancer Research Institute it had been awarded \$147,000 in Research Connections and Partnership grants from the Federal Department of Industry, Innovation and Science and from Melbourne's La Trobe University.

Phylogica said that a study conducted by the Olivia Newton-John Institute's Dr Doug Fairlie, showed that delivery of a novel pro-death peptide inside cells using Phylogica's cell penetrating Phylomer technology resulted in potent killing of lymphoma cancer cells. The company said that similar results were observed when lymphoma cells were treated with a cell-penetrating Phylomer linked to the drug Omomyc targeting the Myc cancer protein.

Dr Fairlie said that Phylogica's cell penetrating Phylomers were "the most effective we've ever used to deliver peptides inside cells".

"Our peptides work by turning on suicide pathways in cancer cells, causing them to die," Dr Fairlie said.

"This approach has been challenging until now due to the difficulties in delivery of peptides inside of cells where they are active," Dr Fairlie said.

In November, Phylogica said that it had identified multiple proprietary Phylomer candidates with confirmed ability to bind and block the intracellular Myc transcription factor activity, with two candidates exhibiting "better killing activity in cancer cells than the previous gold-standard Omomyc when fused to Phylogica's proprietary cell penetrating Phylomers" (BD: Nov 16, 2015).

Earlier in November, Phylogica said that an expanded breast cancer study in mice confirmed that its peptide-Omomyc fusion "significantly reduces tumor size" with sustained tumor inhibition, reproducing findings in an animal model of breast cancer undertaken earlier this year (BD: Mar 30, Nov 5, 2015).

The company said at that time that the Myc transcription factor was "a highly validated intracellular cancer target, expressed in many common cancers that had proven to be undruggable with conventional therapies".

Separate research said that Omomyc interfered with the action of Myc.

Today, Phylogica chief scientific officer Dr Paul Watt said the study demonstrated "the power of our technology to identify novel combinations of drugs that work better together than they do alone".

"This approach has already yielded the most potent inhibition of the MYC cancer protein every reported, an outcome that has major implications for increasing drug activity and reducing side effects in ways not previously possible," Dr Watt said.

"The finding that cell penetrating Phylomers linked to Omomyc can kill lymphoma cells is also notable," Dr Watt said.

"Our current goal is to test the activity of our best-in-class Myc inhibitors in an animal model of lymphoma," Dr Watt said.

"Confirming that Omomyc can kill lymphoma cells validates the choice of this animal model for testing the efficacy of drugs targeting Myc," Dr Watt said.

Phylogica was up 0.2 cents or 13.3 percent to 1.7 cents with 31.1 million shares traded.

INVION

Invion says it has definitive agreements to raise about \$500,000 in a placement to sophisticated and professional investors who are existing shareholders.

Invion said that the placement would complement funds raised under the share purchase plan which raised about \$1.3 million (BD: November 10, 2015).

The company said that placement and plan shares would be issued at a 10 percent discount to the 5-day volume-weighted average price to the day before the allotment date and were expected to begin trading on December 10, 2015.

Invion said the funds would be used for working capital.

In September, Invion said it had raised \$1,001,000 in a placement at 1.4 cents a share to an unnamed US institutional investor (BD: Sep 1, 2015).

Invion was unchanged at 0.8 cents.

ORTHOCELL

Orthocell says that Canada has granted a patent covering the combination of bio-scaffolds and tenocytes, the cells that make up healthy tendons.

Orthocell said that the patent was entitled 'Tenocyte containing bioscaffolds and treatments using the same' and provided coverage to April 24, 2028.

Orthocell said that the patent complemented its patent family covering cells, scaffolds and combinations and followed granted patents in the US, Singapore, China and New Zealand, providing "a solid [intellectual property] foundation for both cellular therapy for tendon regeneration and for the collagen based medical device Celgro.

Orthocell managing-director Paul Anderson said the patent "relates to the combination of cells and scaffolds to form a regenerative construct for tendons".

"This patent strongly complements Orthocell's current Ortho-ATI injectable cell therapy for degenerate tendons and collagen based soft tissue medical device Celgro," Mr Anderson said.

Orthocell was up two cents or 5.6 percent to 38 cents.

OPTISCAN

Optiscan says that substantial shareholder Ian Mann will lend the company \$300,000 and has been appointed as a director, replacing Bruce Andrew.

Optiscan said that it was "assessing funding options" and as an interim measure had entered into a \$300,000 loan agreement with Ezahc Pty Ltd, an entity associated with Mr Mann, at 15 percent a year, maturing on December 31, 2016.

The company said that the loan would have general security over the assets of the company after the existing debt facility of \$500,000 was discharged, which would occur on receipt of a Federal Government Tax Incentive of \$677,174, expected imminently.

Optiscan said that Mr Mann had been "a strong financial supporter ... and a staunch advocate of the company's technology capabilities".

The company said that Mr Mann had operated businesses in the textiles, garment, construction supplies and food industries and was recently appointed to the board of the Dalgarno Institute.

Optiscan chief financial officer Bruce Andrew has resigned as an executive director and remains chief financial officer.

The company thanked Mr Andrew "for his contribution as an executive director since his appointment in January 2010".

Optiscan was up half a cent or 17.2 percent to 3.4 cents.

IMPEDIMED

Impedimed says the first joint American Cancer Society and American Society of Clinical Oncology Breast Cancer Survivorship Care Guideline has been published.

Impedimed said that the guideline, published in the Journal of Clinical Oncology recommends clinicians focus on the early identification and management of lymphoedema and counsel survivors on how to prevent and reduce the risk of lymphoedema.

Impedimed chief executive officer Richard Carreon said that inclusion of lymphoedema in the Breast Cancer Survivorship Care Guideline "demonstrates the importance of counselling breast cancer survivors on the risk of lymphoedema".

Impedimed climbed five cents or 4.9 percent to \$1.07.

QRX PHARMA

The administrators of QRX say a deed of company arrangement paying creditors 100 cents in the dollar has been executed and QRX is expected to apply for ASX readmission.

QRX was placed in administration following the failure to win regulatory approval for the Moxduo dual opioid capsule (BD: Aug 14, 2014; May 25, 2015).

QRX last traded at 2.8 cents.

BENITEC BIOPHARMA

Benitec says that chief executive officer Dr Peter French "will step down", effective today, with chief financial officer Greg West appointed interim chief executive officer.

Benitec is currently in a long-running phase I/II trial of a single infusion of TT-034 for hepatitis C, with results expected within the next 12 months.

The company said it had begun a search for a new chief executive officer who was expected to be based in the US, in line with its goal to establish a stronger US profile and management team, following its Nasdaq listing in August 2015 and establishment of the Bremner Laboratory in San Francisco, California, in September 2014.

Benitec chairman Peter Francis said that "over the past five years, Dr Peter French's leadership has been instrumental in Benitec's transformation from a company that had limited resources and no clinical programs, to become a clinical stage company, with a valuable development pipeline and a solid cash position".

Benitec fell 1.5 cents or 4.5 percent to 32 cents.

CRYOSITE

Cryosite says that Stephen Roberts has been appointed a director effective from December 8, 2015, replacing Christina Boyce.

Cryosite said that Mr Roberts had more than 25 years experience in management and consulting and was currently a director of the Cancer Council of Australia, Social Ventures Australia Capital Fund and a number of public unlisted companies and was previously Mercer Investments Asia Pacific senior partner, Russell Investments Australasia managing-director and BT Funds Management senior vice-president.

Cryosite said that Mr Roberts held a Bachelor of Business Degree from the University of Technology Sydney and a Masters of Business Administration from the Paris, France-based Institut Européen d'Administration des Affaires (European Institute for Business Administration, or Insead).

The company said that Ms Boyce resigned "due to other work commitments".

Cryosite was untraded at 25 cents.

PROGEN PHARMACEUTICALS

Progen says Dr Christopher Harvey and Dr Hongjen Chang did not stand for annual general meeting re-election “due to overwhelming support for the new directors”. Progen said that Dr Stanley Chang, Eugene Cheng and Emily Lee were elected directors. In October, Progen said that as part of the merger with Medigen’s TBG, Medigen and TBG chairman Dr Stanley Chang would be appointed a Progen director with TBG chief executive officer Eugene Cheng appointed chief executive officer and managing director of Progen, with Ms Lee appointed as an independent non-executive director and Jitto Arulampalam continuing as non-executive chairman and that Dr Cheng and Dr Harvey would resign subject to completion (BD: Oct 16, 2015). Progen was untraded at 22.5 cents.

NANOSONICS

The Delaware-based Goldman Sachs Group says it has ceased its substantial shareholding in Nanosonics, yet again. Following the notice on Tuesday December 8, 2015 that it had become substantial in Nanosonics with 14,458,152 shares or 5.10 percent, Goldman Sachs said today that it had reduced its holding below the five percent threshold, with subsidiary Rothesay Life returning the 837,004 shares it borrowed in yesterdays’ substantial shareholder notice (BD: Oct 2, 5, 15, 16, 20, 21, 23, 27, 28, Nov 5, 6, 9, Dec 2, 4, 7, 8, 2015). Previously, under a counterparty agreement, Goldman Sachs said it had returned, lent and borrowed shares held by subsidiaries, Rothesay Life, JP Morgan Chase, RBC Dexia Australia, HSBC Custody Nominees and the Bank of New York Mellon (BD: Apr 13, 2015). Nanosonics fell three cents or 1.8 percent to \$1.605.