



# Biotech Daily

Wednesday December 2, 2015

*Daily news on ASX-listed biotechnology companies*

- \* **ASX, BIOTECH DOWN: PHARMAXIS UP 9%, COMPUMEDICS DOWN 14%**
- \* **ASTRAZENECA PICKS 2<sup>nd</sup> STARPHARMA DEP CANCER MOLECULE**
- \* **CSIRO, KAYBAN, BORON DEVELOP FLAX SEED ANTI-MICROBIAL**
- \* **MEDADVISOR IPO RAISES \$5m FOR DRUG COMPLIANCE APP**
- \* **CIRCADIAN RECEIVES \$3m FEDERAL R&D TAX REFUND**
- \* **LIVING CELL RESUMES NTCELL MANUFACTURE**
- \* **GOLDMAN SACHS ABOVE, BELOW 5% OF NANOSONICS, YET AGAIN**

## MARKET REPORT

The Australian stock market slipped 0.15 percent on Wednesday December 2, 2015 with the ASX200 down 7.8 points to 5,258.3 points.

Eleven of the Biotech Daily Top 40 stocks were up, 22 fell, six traded unchanged and one was untraded. All three Big Caps fell.

Pharmaxis was best, up two cents or 9.1 percent to 24 cents with 946,967 shares traded.

Actinogen climbed 6.5 percent; Ellex and Nanosonics rose more than four percent; Optiscan and Starpharma were up more than three percent; Atcor and Impedimed rose more than two percent; with Clinuvel, IDT and Psivida up more than one percent.

Compumedics led the falls, down seven cents or 14.3 percent to 42 cents with 1.5 million shares traded.

Avita lost eight percent; Antisense and Cellmid fell more than seven percent; Neuren and Pro Medicus shed more than five percent; Biotron fell 4.3 percent; Bionomics, Genetic Technologies, Living Cell and Universal Biosensors were down more than three percent; Acrux, Mesoblast and Oncosil shed more than two percent; Admedus, Anteo, Benitec, Circadian, Medical Developments, Prima, Resmed and Sirtex lost more than one percent; with Cochlear, CSL (closing at \$100.00) and Viralytics down by less than one percent.

## STARPHARMA HOLDINGS

Starpharma says it will begin a second project for collaboration partner Astrazeneca which has selected a second dendrimer enhanced oncology molecule candidate.

Starpharma said that the development of the new dendrimer enhanced product (DEP) candidate would be conducted under the recent multi-product licence agreement with Astrazeneca (BD: Sep 7, 2015).

The company said that it had granted access for the use of its DEP drug delivery platform in the development and commercialization of Astrazeneca compounds against a specific drug target and Astrazeneca would fund the joint program.

Starpharma said its DEP technology was used "to improve the performance of pharmaceuticals" and dendrimer-enhanced versions of selected drugs had been found to be superior to the unmodified drugs in pre-clinical studies, improving efficacy and with fewer side effects or toxicities.

The company's DEP-docetaxel is in a 30-patient phase I solid tumor trial, with half the patients recruited and no dose limiting toxicities to date (BD: Jun 5, 2014, Apr 30, 2015). Starpharma was up 2.5 cents or 3.2 percent to 80 cents.

## COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION

The Commonwealth Scientific and Industrial Research Organisation says that start-up company Kayban has developed an organic flaxseed oil anti-microbial product range. The CSIRO said that the collaboration with Kayban had led to the development of the Bio3 Guardian range of topical lotions and washes that were fast-acting and effective at killing Staphylococcus aureus, a prevalent "superbug" that led to 1,621 hospital-acquired infection cases in 2013-'14.

The CSIRO said that flaxseed oil contained alpha-linolenic acid, an omega-3 fatty acid with known anti-microbial properties.

The Organisation said that with the support of a Victorian Government Innovation and Technology Voucher, Kayban and CSIRO developed the method for extracting the alpha-linolenic acid from organic flaxseed.

CSIRO organic chemist Dr Peter Duggan said "the challenge was to come up with a cost-effective manufacturing technology that consistently produced excellent quality, highly enriched alpha-linolenic acid".

"What we've achieved is a smarter, more efficient process that's been pivotal in Kayban's journey to commercialising a unique saleable product," Dr Duggan said.

CSIRO said that the technology had been transferred to its Melbourne-based spin out company Boron Molecular to extract the flaxseed component on a multi-kilogram scale and Kayban would work with another local manufacturer to formulate the product.

Kayban director Frank Palermo said Bio3 Guardian was a better way for preventing the spread of infection.

"Our products contain a unique anti-microbial formula that uses natural flaxseed oil properties, instead of ethanol, to kill bad bacteria while leaving essential good bacteria intact," Mr Palermo said.

"It's a moisturising, all-natural alternative to ethanol-based products that can cause skin to dry and crack upon repeated use and increase chances of developing conditions like dermatitis," Mr Palermo.

Kayban is a public unlisted company, which is 47.5 percent owned by the public unlisted pooled development fund, Technology Development and Investment (TDI).

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## MEDADVISOR

Medadvisor has raised \$5 million at three cents a share to list on the ASX and commercialize its patient medication compliance mobile telephone application. Yesterday, Medadvisor opened under the ASX code of MDR at 4.5 cents, fell to four cents, climbing as high as 5.7 cents before closing at 5.2 cents, 73.3 percent above to its offer price, with 36,360,215 shares traded.

The company said that its software platform helped individuals monitor their medication use, connecting to their pharmacy, automatically retrieving medication records and activating a training, information and reminder system to ensure correct and reliable medication use.

Medadvisor said that poor medication adherence had been identified as “one of the most significant and costly problems faced by governments and major healthcare providers in developed nations”.

The company said that 50 to 60 percent of medication prescribed in Australia was taken correctly, contributing to poor health, including unnecessary hospitalisations, as well as significant missed revenue for industry.

Medadvisor said that the Australian pharmaceutical market was valued at more than \$10 billion a year, with 288 million prescriptions issued each year.

The company said its technology addressed compliance that caused nearly \$US500 billion in avoidable costs worldwide each year, improving adherence by up to 20 percent. Medadvisor said that it had “a new medication training relationship with Amgen ...which currently markets eight products in Australia for the treatment of cancer, kidney disease, bone disease and other serious illnesses”.

Medadvisor chief executive officer Robert Read said the company had marketing partnerships with Glaxosmithkline, Astrazeneca, Union Chimique Belge, Apotex and Amgen.

“A quarter of all Australian pharmacies are subscribers to the Medadvisor platform and we garnered strong support from pharmacists who invested in our recent capital raise,” Mr Read said.

“We have more than 100,000 users managing their medication via our free [application], which has been the most downloaded medication-related app in Apple and android stores in Australia in 2014 and 2015,” Mr Read said.

Medadvisor said that the board comprised Mr Read, founder and chief technical officer Josh Swinnerton, chairman Peter Bennetto and Jim Xenos, with Carlo Campiciano appointed as company secretary.

The company said that previous directors of the mining shell Exalt Resources, into which Medadvisor backdoored, Steve Brockhurst and Peter Dykes had resigned.

Medadvisor traded between 4.9 cents and 5.8 cents, closing down 0.2 cents or 3.85 percent to five cents with 23.0 million shares traded.

## CIRCADIAN

Circadian says it has received \$3,041,755 from the Australian Tax Office under the Federal Government Research and Development Tax Incentive program.

Circadian said the rebate related to Australian and eligible overseas expenditure on the development of OPT-302 for the year to June 30, 2015.

Circadian chief executive officer Dr Megan Baldwin said that the receipt of the \$3 million “significantly strengthens our balance sheet as we advance OPT-302 through a phase I/IIa clinical trial for the treatment of wet [age-related macular oedema]”.

Circadian fell half a cent or 1.4 percent to 34.5 cents.

## LIVING CELL TECHNOLOGIES

Living Cell says it has completed contracts to resume control of the manufacturing of its encapsulated pig choroid NTCell from its joint venture company Diatranz Otsuka. In August, Living Cell said that Diatranz Otsuka would concentrate its research and development on the Diabecell encapsulated pig islets of Langerhans cells in the US and as a consequence, the Southland pig facility was “surplus to [Diatranz Otsuka’s] requirements” (BD: August 18, 2015).

The company said in August that Diatranz Otsuka would continue to supply pigs from its North Island, New Zealand pig facility in accordance with the supply agreement between the two companies until a contract for Living Cell to assume control was completed. Today, Living Cell said that the purchase of plant, designated pathogen-free pigs and inventory was estimated to increase cash outflows by approximately \$50,000 for each of the next 12 months.

The company said that the facilities would provide sufficient capacity to manufacture NTCell for the phase IIb clinical Parkinson’s disease trial and to treat and charge patients under provisional consent.

Living Cell fell 0.2 cents or 3.9 percent to 4.9 cents.

## NANOSONICS

The Delaware-based Goldman Sachs Group says that, yet again, it has become and ceased its substantial holding in Nanosonics.

This morning Goldman Sachs said it had become substantial with 14,880,696 shares or 5.25 percent, but by 2.46pm Goldman Sachs said it had returned 1,181,764 borrowed shares from a parcel of 1,259,548 shares borrowed by the London-based Rothesay Life. Goldman Sachs said that through JP Morgan Chase Bank in Sydney and for “various clients” it held 11,961,597 shares, while RBC Dexia Investor Services held 1,617,774 shares, HSBC Custody Nominees held 41,777 shares and Bank of New York Mellon through Rothesay Life held 1,259,548 shares.

Goldman Sachs said that between August 6 and November 27, 2015 it bought and borrowed shares in more than 100 previously reported trades with the most recent the acquisition by Rothesay Life of 1,259,548 shares for no applicable cost.

Throughout October and November Goldman Sachs repeatedly increased above or reduced below the five percent substantial threshold in Nanosonics, primarily borrowing or returning shares “to the counterparty under a repurchase agreement” for no applicable consideration (BD: Oct 2, 5, 15, 16, 20, 23, 27, 28, Nov 5, 6, 9, 2015).

Previously, under a counterparty agreement, Goldman Sachs returned, lent and borrowed shares held by subsidiaries, Rothesay Life, JP Morgan Chase, RBC Dexia Australia, HSBC Custody Nominees Australia and the Bank of New York Mellon (BD: Apr 13, 2015). Nanosonics climbed seven cents or 4.5 percent to \$1.62.