

# Biotech Daily



Wednesday November 30, 2016

*Daily news on ASX-listed biotechnology companies*

- \* **ASX, BIOTECH DOWN: ACTINOGEN UP 6.5%, UNIVERSAL BIO DOWN 5%**
- \* **ZELDA THC BEATS PURE THC, EQUALS LAPATANIB FOR CANCER IN MICE**
- \* **PROFS JAMES MCCLUSKEY, JAMIE ROSSJOHN SHARE \$50k VICTORIA PRIZE**
- \* **LIVING CELL RAISES \$6.3m**
- \* **ITL, MYHEALTHTEST, CANBERRA UNI FEDERAL \$50k FOR NEW TESTS**
- \* **GENETIC TECHNOLOGIES COLORECTAL TEST, NASDAQ PUSH PRICE 110%**
- \* **NUHEARA IQBUD PRODUCTION A 'SIGNIFICANT MILESTONE'**
- \* **ELLEX REQUESTS PLACEMENT TRADING HALT**
- \* **LBT REQUESTS CAPITAL RAISING TRADING HALT**
- \* **PROTEOMICS REQUESTS CAPITAL RAISING TRADING HALT**
- \* **UP TO 10% OF STARPHARMA OPPOSE CEO 'PERFORMANCE' RIGHTS**
- \* **VICTORIA SCIENCE, MEDICAL RESEARCH, TECHNOLOGY PANEL**
- \* **BIO-MELBOURNE BREAKFASTS ON REGENERATIVE MEDICINE**
- \* **ANTEO APPOINTS DR JOHN HURRELL CHAIRMAN**
- \* **ACTINOGEN LOSES CHAIRMAN MARTIN ROGERS**

## MARKET REPORT

The Australian stock market fell 0.31 percent on Wednesday November 30, 2016 with the ASX200 down 17.0 points to 5,440.5 points. Nine of the Biotech Daily Top 40 stocks were up, 17 fell, 11 traded unchanged and three were untraded.

Actinogen was the best, up 0.3 cents or 6.5 percent to 4.9 cents with 401,614 shares traded. Airxpanders and Neuren climbed more than three percent; IDT, Living Cell, Resmed and Uscom rose more than two percent; Clinuvel was up 1.3 percent; with Cochlear, Nanosonics and Pro Medicus up by less than one percent.

Universal Biosensors led the falls, down 1.5 cents or 4.8 percent to 29.5 cents with 24,973 shares traded. Anteo, Benitec and Cyclopharm fell four percent or more; Atcor, Cellmid, Compumedics, Impedimed and Oncosil were down three percent or more; Genetic Signatures, Sirtex and Viralytics shed more than two percent; Acrux, Medical Developments, Prana and Starpharma were down more than one percent; with both CSL and Reva down 0.9 percent.

## ZELDA THERAPEUTICS

Zelda says its oral tetrahydrocannabinol (THC) formulation has greater anti-cancer effects than pure THC and the chemotherapy drug lapatanib in mice.

Zelda said that its first proof-of-concept study into the anti-cancer effects of its THC-rich medical cannabis formulation was conducted by researchers at Spain's Complutense University of Madrid led by Prof Cristina Sánchez and Prof Manuel Guzmán.

The company said the study compared the anti-tumor responses of pure THC against its formulation of THC-rich oil and the standard chemotherapy drug lapatanib which was a tyrosine-kinase inhibitor of epidermal growth factor receptor (EGFR) and human EGFR type 2 (HER2) receptors known to play a role in breast cancer.

Zelda executive chairman Harry Karelis told Biotech Daily that the four-arm study of seven mice per group, directly compared the three compounds against each other, as well as its THC formulation in combination with lapatanib against lapatanib alone.

The company said that the study showed that its THC-rich oil "was significantly more potent at reducing tumor growth than pure THC and more importantly, was as potent as lapatanib in reducing tumor growth".

Zelda said that the study was carried out in immune-deficient mice hosting tissue grafts of the human breast cancer, HER2 positive adenocarcinoma.

The company said that treatment was oral and tumor volume was measured daily.

Zelda said the results supported the study of its formulations as anti-cancer therapeutics in their own right or in combination with chemotherapy and radiotherapy.

The company said that current studies included mechanism-of-action studies, testing other formulations of its cannabinoids and testing against other cancer cell lines including HER2 positive cells resistant to HER2-targeted treatments and triple-negative breast cancer cells.

Zelda said that Prof Sánchez and Prof Guzmán were members of its medical advisory board and leaders in studying the anti-cancer effects of cannabinoids and had published "pioneering papers in prestigious scientific journals detailing specific mechanisms of action of cannabinoids on certain cell pathways".

The company said the research program intended to generate industry-standard data packs with the aim "to licence the intellectual property to a major group better resourced to progress into formal human clinical trials in the area of cancer therapy".

Zelda said its business model was to benefit from structuring deals comprised of up-front payments, milestones and royalties from the licencees.

Mr Karelis said the company was "very excited by the data generated in this preliminary study examining our cannabis extracts in well validated models of human breast cancer".

"This provides a solid foundation to continue to examine the anti-cancer effects of whole-plant cannabis extracts particularly as a combination therapy for cancer sufferers," Mr Karelis said. "Future studies will examine the potential to significantly increase the anti-cancer effect of traditional chemotherapy drugs and is an exciting opportunity that can not only improve a patient's quality of life but also potentially extend life expectancy."

"There is a long way to go before this approach reaches formal human clinical trials but importantly, this data supports the anecdotal experiences already seen in patients in California," Mr Karelis said.

Prof Sánchez said the preliminary results "strongly point in favor of using whole-plant extracts over single cannabinoid molecules".

"We are in the process of designing and conducting a series of follow-on experiments in coming months which will continue to add to our body of knowledge in this field," Prof Sánchez said.

Zelda climbed 0.8 cents or 34.8 percent to 3.1 cents with 38.9 million shares traded.

## VICTORIA GOVERNMENT

The Victoria Government says that Prof James McCluskey and Prof Jamie Rossjohn will share this year's \$50,000 Victoria prize for life sciences.

The State Government said that the University of Melbourne's Prof McCluskey and Monash University's Prof Rossjohn worked collaboratively for 15 years, "making substantial contributions to the understanding of the human immune system, in particular for coeliac disease, organ transplantation and infectious disease".

A media release from the Minister for Small Business, Innovation and Trade Philip Dalidakis said the Government had partnered with the Victorian Endowment for Science, Knowledge and Innovation (Veski) to award the prizes.

The Government said the Royal Melbourne Institute of Technology (RMIT) University's Prof Min Gu was awarded the \$50,000 Victoria prize for physical sciences, recognizing his research in optical data storage "allowing data that would ordinarily fill a football field to now be stored on a single digital versatile disc (DVD)".

The media release said that 12 early career researchers were awarded fellowships valued at \$18,000 each with six in life sciences and six in physical sciences.

The life sciences fellowships were awarded to the University of Melbourne's Sarah Baines and Paola Vaz, the Royal Melbourne Hospital's Dr Ryan De Cruz, the Peter Doherty Institute's Dr Hamish McWilliam, the Bionics Institute's Dr Thushara Perera and the Swinburne University of Technology's Dr Peng-Yuan Wang.

## LIVING CELL TECHNOLOGIES

Living Cell says it has raised \$6,300,000 in a placement to institutional and professional investors at 8.5 cents a share.

Living Cell said the funds would be used to continue research and development, including completing the phase IIb trial of NTCell for Parkinson's disease and treating the placebo patients at the most effective dose, as well as to increase manufacturing efficiency.

The company said that if the trial was successful, the company would apply for provisional consent to treat paying patients in New Zealand and prepare for commercialization.

Living Cell said that Hunter Capital Advisors was the sole lead manager to the placement. Living Cell was up 0.2 cents or 2.2 percent to 9.3 cents.

## ITL LIMITED

ITL says its Myhealthtest subsidiary and the University of Canberra have won a \$50,000 Federal Innovation Connection Grant to develop additional tests.

ITL said that Myhealthtest provided direct to consumer pathology test provider, with the first test a finger-prick HbA1c test to diagnose and monitor diabetes

The company said Myhealthtest had been working with the University of Canberra for 12 months to develop a broader range of tests using dried blood spots with advanced technologies.

ITL said the tests would allow for accurate and economical testing for a range of health conditions such as hormonal imbalances and vitamin deficiencies.

The company said the diabetes tests were ordered online and available at chemists in the Australian Capital Territory, the finger-prick samples were taken at home, sent to its laboratory through the regular postal service and the results were received electronically.

ITL executive chairman Bill Mobbs said that the grant was "an endorsement of the hard work [Myhealthtest] has carried out to expand its portfolio of tests".

ITL was up half a cent or 1.85 percent to 27.5 cents.

### GENETIC TECHNOLOGIES

Genetic Technologies has climbed as much as 110 percent from one cent to a high of 2.1 cents on news of licencing a saliva-based colorectal cancer risk assessment test.

Yesterday, Genetic Technologies said it had licenced the test from the University of Melbourne and rose 0.3 cents or 30 percent to 1.3 cents with 4.6 million shares traded.

On the Nasdaq, the company's GENE shares climbed 83.3 US cents or 63.73 percent to \$US2.14 (\$A2.86) with 26,148,271 shares traded.

Today, Genetic Technologies closed up 0.5 cents or 38.5 percent at 1.8 cents with 20.5 million shares traded.

### NUHEARA

Nuheara says the production of its Iqbuds by its Flextronics contract manufacturer was "a significant production milestone".

Nuheara said that the first sound filtering and device ear buds would be shipped to a third-party certification body for final approval and that after testing and approval by the unnamed certification body, the Iqbuds would be issued marks or labels to enable distribution and retail sale initially in the US, Canada, Europe Australia and New Zealand. Nuheara said that certification was expected to be completed over the coming weeks.

Nuheara chief executive officer Justin Miller said that in March the company announced "an aggressive plan to commence commercial production of Iqbuds by December 2016".

"At that stage we had only just produced our first working wearable Iqbuds prototype," Mr Miller said. "Despite significant technological and manufacturing challenges, it is very pleasing that within ... eight months ... the company has been able to reach such a significant milestone."

Mr Miller said the engineering of innovative wireless technology for the ear was "not without its difficulties" and it was a credit to the team that it remained on schedule.

Nuheara was up 0.3 cents or 4.9 percent to 6.4 cents with 4.2 million shares traded.

### ELLEX MEDICAL LASERS

Ellex has requested a trading halt "pending an announcement by Ellex in relation to a placement".

Trading will resume on December 2, 2016 or on an earlier announcement.

In April, Ellex raised \$5,005,000 in a placement at 77 cents a share (BD: Apr 7, 2016).

Ellex last traded at \$1.59.

### LBT INNOVATIONS

LBT has requested a trading halt "pending an announcement in relation to a capital raising".

Trading will resume on December 2, 2016 or on an earlier announcement.

LBT last traded at 38.5 cents.

### PROTEOMICS INTERNATIONAL LABORATORIES

Proteomics has requested a trading halt "pending the release of an announcement regarding capital raising".

Trading will resume on December 2, 2016 or on an earlier announcement.

Proteomics last traded at 27.5 cents.

### STARPHARMA HOLDINGS

Starpharma says that 19,329,682 proxy votes (9.99%) opposed the grant of 1,100,000 free 'performance rights' worth \$688,354 to chief executive officer Dr Jackie Fairley. Starpharma said that there were 170,977,591 votes (88.38%) in favor with 3,161,983 votes at the proxy's discretion.

The company said that the remuneration report was opposed by 16,143,970 votes (8.37%) with 174,681,378 votes (90.54%) in favor and 2,109,032 votes at the proxy's discretion, but director Zita Peach was re-elected overwhelmingly.

Starpharma's most recent Appendix 3B new issue announcement said the company had 368,436,766 shares on issue, meaning the votes against Dr Fairley's rights amounted to 5.2 percent of the company, sufficient to requisition extraordinary general meetings. Starpharma fell one cent or 1.5 percent to 66 cents.

### VICTORIA GOVERNMENT

The Victoria Government says it has established a panel "to drive leadership and excellence in ... health and medical research attracting more investment and jobs".

A Victoria Government media release said the 14-member Science, Medical Research and Technology Panel would be led by GBS Venture Partners co-founder and managing director Dr Brigitte Smith as chair and Murdoch Children's Research Institute director Prof Kathryn North as deputy chair.

The Government said that the panel would provide advice on attracting funding for medical research, protecting intellectual property and the translation and commercialization of research.

A media release said The expert 14 member panel is made up of: Dr Smith, Prof North, Victoria's lead scientist Dr Amanda Caples, Hudson Institute scientist Prof Alan Trounson, Burnet Institute chief executive officer Prof Brendan Crabb, Baker IDI Heart and Diabetes Institute Prof Bronwyn Kingwell, Victoria Parliamentary Secretary for Medical Research Frank McGuire, Biomedical Research Victoria chairman Dr George Morstyn, Starpharma chief executive officer Dr Jackie Fairley, FB Rice, patent attorneys counsel Dr Jenny Petering, the University of Melbourne business development director Dr Kerry Hegarty, Commonwealth Scientific and Industrial Research Organisation health and biosecurity director Dr Rob Grenfell, Doherty Institute for Infection and Immunity director Prof Sharon Lewin, and Monash University chancellor Simon McKeon.

### ANTEO DIAGNOSTICS

Anteo says that director Dr John Hurrell has been appointed as the company's non-executive chairman.

Anteo said that Dr Hurrell was appointed a director in 2013 has more than 30 years' experience in the biotechnology and life science industries. (BD: Feb 25, 2013).

The company said Dr Hurrell was currently a consultant to PTS Diagnostics.

Anteo fell 0.2 cents or 4.1 percent to 4.7 cents.

### ACTINOGEN MEDICAL

Actinogen says that chairman Martin Rogers has retired as both chairman and a director.

Actinogen said that Mr Rogers had been chairman since its inception in 2014.

The company said that director Dr Jason Loveridge would be the interim chairman.

Actinogen was up 0.3 cents 6.5 percent to 4.9 cents.

## BIO-MELBOURNE NETWORK

The Bio-Melbourne Network says its last Bio-Breakfast for 2016 will host Canada stem cell specialist Prof Andras Nagy.

The Network said that Prof Nagy established a satellite laboratory at Melbourne's Australian Regenerative Medicine Institute in 2015 to integrate his research efforts with collaborators at Monash University.

The Bio-Melbourne Network chief executive officer Dr Krystal Evans said that "members are very interested in models for international collaboration and how collaborative networks can drive technology development, company creation and accelerate commercialization".

Dr Evans said that Prof Nagy would discuss his experience and insights in the context of regenerative medicine technologies and cell-based therapies as well as the recently announced Melbourne node of the Canadian Centre for Commercialisation of Regenerative Medicine.

The Bio-Breakfast will be held at the Monash Conference Centre, Level 7, 30 Collins Street, Melbourne on December 6, 2016, with registration from 7:15am, with a networking breakfast until presentations from 8am to 9am.

To register go to: <http://bit.do/dec6biobreakfast>.