



Biotech Daily

Wednesday September 28, 2016

Daily news on ASX-listed biotechnology companies

- * **ASX, BIOTECH UP: ACTINOGEN UP 8.5%, UNIVERSAL BIO DOWN 7%**
- * **FEDERAL 'CONSULTATION' ON R&D TAX INCENTIVE REVIEW**
- * **QBIOTICS RAISES \$16.5m FOR EBC-46 CANCER DRUG, WOUND HEALING**
- * **PETER DOHERTY DEVELOPING POTENTIAL MALARIA VACCINE**
- * **DORSAVI WINS \$350k VICTORIA MANUFACTURING GRANT**
- * **MMJ SPINS-OUT UNITED GREENERIES, SATIPHARM FOR \$39m**
- * **OBJ AGM FOR 10m DIRECTORS 'PERFORMANCE' RIGHTS**
- * **FOUNDATION FOR MEDICAL RESEARCH OCTOBER CONFERENCE**
- * **MARIE MCDONALD NANOSONICS DIRECTOR, DR RON WEINBERGER**
- * **PSIVIDA APPOINTS PROF JAY DUKER DIRECTOR**

MARKET REPORT

The Australian stock market edged up 0.12 percent on Wednesday September 28, 2016, with the ASX200 up 6.5 points to 5,412.4 points.

Nineteen of the Biotech Daily Top 40 companies were up, six fell, 12 traded unchanged and three were untraded. All three Big Caps were up.

Actinogen was the best, up 0.5 cents or 8.5 percent to 6.4 cents with 2.8 million shares traded.

Dimerix climbed 6.7 percent; Prana was up five percent; Anteo, Avita and Starpharma were up more than three percent; Bionomics and Osprey rose more than two percent; Compumedics, Medical Developments, Mesoblast, Opthea, Polynovo and Viralytics were up more than one percent; with Cochlear, CSL, Ellex, Impedimed, Nanosonics, Pro Medicus, Resmed and Sirtex up by less than one percent.

Universal Biosensors led the falls, down two cents or 6.9 percent to 27 cents with 46,817 shares traded. Uscom fell 5.8 percent; Clinuvel, Living Cell and Oncosil lost more than four percent; with Airxpanders down 0.4 percent.

FEDERAL GOVERNMENT

The Federal Minister for Industry, Innovation and Science Greg Hunt has called for “consultation” on its Research and Development Tax Incentive Review.

A media release from Mr Hunt said the Government was “encouraging feedback from Australia’s research and development community ... on the R&D Tax Incentive Review findings undertaken by Chair of Innovation Australia Bill Ferris, chief scientist Dr Alan Finkel and Treasury secretary John Fraser.

The Review does not appear to recommend the 1.5 percent cut to the 45 percent R&D Tax Incentive agreed by the Government and Labor Opposition and before the Senate. A note to the Review said that the 1.5 percent cut “would apply to income years starting on or after 1 July 2014”.

The media release said the Review was intended to “identify opportunities to improve the effectiveness and integrity of the R&D Tax Incentive, including by sharpening its focus on encouraging additional R&D spending”.

The media release said that the R&D Tax Incentive aimed “to boost the quality and quantity of [research and development] undertaken by industry to drive productivity and growth ... [and was] a fundamental part of Australia’s research and development system and accounts for around one-third of the Turnbull Government’s support for innovation”.

The media release said that in 2013-’14, about 13,700 entities generated \$19.5 billion of research and development at an estimated cost to government of about \$3 billion.

The Government said submissions were invited until October 28, 2016 accompanied by industry and state-based roundtables in all states and territories and it would hold discussions in November and December and would respond by April 2017.

The review report and more information are at: <https://www.business.gov.au/rd-review>.

QBIOTICS

Qbiotics says it has raised about \$16.5 million from an “oversubscribed” \$12.5 million share offer at 40 cents a share and a subsequent \$4 million private placement.

Qbiotics said it was “in a strong financial position with over \$30 million in funding”.

The company said it was finalizing product development and market launch preparation of the anticancer drug EBC-46 for the US and UK veterinary markets and development of its wound healing treatment for human diabetic foot ulcers and venous leg ulcers.

Qbiotics said it was developing its EBC-46 as a potential local treatment for solid tumors in humans and a phase I/II trial was “showing encouraging results” (BD: Aug 15, 2016).

The company said that EBC-46 demonstrated efficacy in all tumor types treated to date including melanoma, squamous cell carcinoma, basal cell carcinoma and breast adenocarcinoma and it was demonstrating a good safety profile.

Qbiotics said it was concentrating on mast cell tumors and soft tissue sarcomas in dogs and studies had progressed to pivotal field trials in the US and UK.

The company said its pre-clinical wound healing product was initially focused on the treatment of chronic wounds including diabetic ulcers and venous leg ulcers, but veterinary clinical studies demonstrated significant potential as a treatment for both chronic and acute wounds.

Qbiotics chief executive officer Dr Victoria Gordon said the company’s strategy of pursuing veterinary and human markets simultaneously was “attractive to investors”.

“Our plan to go after the international veterinary markets is a way of building a revenue stream while also demonstrating the efficacy of our products in large, developed mammals that have sophisticated immune systems,” Dr Gordon said.

Qbiotics is a public unlisted company.

THE PETER DOHERTY INSTITUTE FOR INFECTION AND IMMUNITY

The Peter Doherty Institute says it has developed a prime-and-trap vaccine method, which gives “complete protection against malaria” in mice.

The Institute said the team of scientists co-led by the University of Melbourne’s Prof Bill Heath and the Monash Biomedicine Discovery Institute’s Prof Irina Caminschi had identified liver-resident immune cells which guarded against malaria infection, potentially leading to a vaccine to stop malaria parasites in the liver.

Doherty Institute researcher Dr Daniel Fernandez-Ruiz said that malaria infections started in the liver before travelling further in the body.

“Once bitten by a malaria-carrying mosquito, the parasite quickly makes its way to the liver,” Dr Fernandez-Ruiz said. “After a few days, the infection progresses into the blood, which causes life-threatening symptoms.”

The Institute said that liver-resident memory immune cells did not recirculate through the body, but guarded the liver where they fought infections, and unlike circulating memory cells, which were previously considered important for fighting liver infections, they did not need to spend time migrating to the infected liver from elsewhere in the body.

The research article, entitled ‘Liver-Resident Memory CD8+ T Cells Form a Front-Line Defence against Malaria Liver-Stage Infection’ was published in the journal Immunity, with an abstract at: [http://www.cell.com/immunity/fulltext/S1074-7613\(16\)30335-1](http://www.cell.com/immunity/fulltext/S1074-7613(16)30335-1).

The abstract said that the researchers “identified a population of memory CD8+ T-cells that expressed the gene signature of tissue-resident memory T-cells (Trm-cells) and remained permanently within the liver, where they patrolled the sinusoids”.

“Exploring the requirements for liver Trm-cell induction, we showed that by combining dendritic cell-targeted priming with liver inflammation and antigen recognition on hepatocytes, high frequencies of Trm-cells could be induced and these cells were essential for protection against malaria sporozoite challenge,” the abstract said.

“Our study highlights the immune potential of liver Trm-cells and provides approaches for their selective transfer, expansion, or depletion, which may be harnessed to control liver infections or autoimmunity,” the abstract said.

“We found that liver-resident memory immune cells were more efficient against liver-stage malaria parasites than circulating memory cells because of their ability to immediately recognize and efficiently kill parasites before they progress to the blood and cause disease,” Dr Fernandez-Ruiz said.

The Doherty Institute said that the research team used the discovery to develop a prime-and-trap vaccine method that was completed with two injections.

The Institute said that the first priming injection set the immune response in motion, boosting the malaria-specific immune cells and helping to attract them to the liver.

Prof Caminschi said the second trapping injection pulled immune cells into the liver and then converted them into liver-resident immune cells to permanently guard the liver from malaria infection.

“This discovery opens a new door for the design and development of the most efficient malaria vaccine to date,” Prof Caminschi said.

“Once vaccinated, these immune cells trapped in the liver effectively protected against malaria infection,” Prof Caminschi said.

The Doherty institute said that with more than 200 million cases of malaria and almost half-a-million deaths each year worldwide, mostly of children under five years, there was “an urgent need for a malaria vaccine”.

The Institute said it was a joint venture between the University of Melbourne, the Royal Melbourne Hospital, Monash University and the University of Sydney’s Centenary Institute of Cancer Medicine and Cell Biology.

VICTORIA GOVERNMENT, DORSAVI

The Victoria Government says it has provided Dorsavi a \$350,000 Future Industries Manufacturing Program grant.

The Parliamentary Secretary for Medical Research Frank McGuire said the grant would assist Dorsavi establish a manufacturing facility and purchase and install new equipment. The Victoria Government said that the grant was intended to assist transition the economy to “an advanced manufacturing state” and built on 10 projects underway, which collectively would create 77 new full-time jobs.

The State Government said companies could apply for grants up to \$500,000 to invest in new manufacturing technologies and processes that create jobs and increase productivity. For more information go to www.business.vic.gov.au/fimp or call 132215.

Dorsavi was untraded at 50 cents.

MMJ PHYTOTECH

MMJ says it will spin-out subsidiaries United Greeneries and Satipharm through a back-door listing into Top Strike Resources for \$C40 million (\$A39.4 million).

MMJ said Top Strike was listed on the Calgary, Alberta-based Toronto Stock Exchange Venture Exchange and would pay \$C2.5 million in cash and the balance in scrip.

The company said Top Strike would become “a large-scale cannabis producer targeting ... the Canadian medical and recreational market” estimated to be \$C8 billion by 2024.

MMJ said that Black Spruce Merchant Capital was lead manager for the transaction, which was subject to conditions, including shareholder approval.

The company said that the aggregate sale price of United Greeneries and Satipharm was about 97 percent of its current market capitalisation based on a share price of 24 cents.

MMJ said that it expects the transaction to be finalized by the end of December 2016.

MMJ managing-director Andreas Gedeon said the deal would be “a transformational transaction ... aimed at delivering significant value appreciation to our shareholders”.

“MMJ shareholders will continue to benefit post transaction, from indirect exposure to the rapidly expanding Canadian cannabis market and near-term revenues generated from increased Satipharm sales through key regulated markets globally,” Mr Gedeon said.

MMJ climbed two cents or 8.7 percent to 25 cents with 1.7 million shares traded.

OBJ

The OBJ annual general meeting will vote to issue directors Glyn Denison, Dr Christopher Quirk and Jeffrey Edwards 10,000,000 ‘performance rights’.

OBJ said that investors would vote to approve 4,000,000 rights to Mr Edwards and 3,000,000 each for Dr Quirk and Mr Denison but did not state any vesting conditions.

In 2014, OBJ shareholders approved 15,000,000 performance shares each to Mr Edwards, Dr Quirk and Mr Denison, vesting on technology licencing milestones and expiring within three years of issue (BD: Oct 28, 2014).

Today, the company said that resolutions included the ratification of the prior issue of 1,000,000 shares to Prof Anthony Wright and Dr Heather Benson “in recognition of their assistance to the company’s scientific advisory committee”, approval of the 10 percent placement capacity as well as the re-election of director Dr Quirk.

The meeting will be held in the John Worsford Room, Domain (formerly Patersons) Stadium, Gate 12, Level 3, Roberts Road, Subiaco, Western Australia on October 28, 2016 at 10.30am (AWST).

OBJ fell 0.4 cents or 5.1 percent to 7.5 cents with 4.2 million shares traded.

THE NATIONAL FOUNDATION FOR MEDICAL RESEARCH AND INNOVATION

The National Foundation for Medical Research and Innovation says this year's conference will explore strategies to help support and build the biomedical innovation sector.

The Foundation said that its second national conference entitled 'Supporting Biomedical Innovations: Getting Innovations on the Right Track' was supported by the Queensland Government's Advance Queensland Initiative and would bring together government, industry, investors, philanthropists, academia and charities.

The Foundation said that speakers at the conference included former Queensland Premier and Medical Research Commercialisation Fund director Hon Peter Beattie, Janssen Research and Development head of immunology Dr Dan Baker, Commonwealth Innovation and Science Australia Board chair Bill Ferris, University of Queensland Centre for Integrated Preclinical Drug Development director Prof Maree Smith, Queensland chief scientist Dr Geoff Garrett and Oneventures managing director Dr Paul Kelly.

The National Foundation for Medical Research and Innovation said that the conference would consider four key themes: exploring how funders of research could help researchers and their institutions deliver greater impact; learning the lessons from successes and the challenges they faced; investigate opportunities to increase Australia's biomedical innovation sector; and strategies and alignment of expectations when partnering with funders of research.

The Foundation for Medical Research and Innovation said it was founded in 1977 to support innovative areas of research to benefit mankind through the prevention or eradication of diseases.

The conference will be held at the Brisbane Convention and Exhibition Centre, corner of Merival Street and Glenelg Street, South Brisbane, on October 18 and 19, 2016, the week before the Ausbiotech national conference.

Further information including the complete list of speakers and the program is available at: www.nfmri.org.au.

To register go to: <https://nfmri.eventbrite.com.au>.

NANOSONICS

Nanosonics says Marie McDonald will be appointed a non-executive director, effective from October 24, 2016, replacing executive Dr Ron Weinberger.

Nanosonics said that Dr Weinberger was appointed an executive director in 2008 and would step down from the board, but continue as the head of technology development and commercialization.

The company said that Ms McDonald had a background in corporate and commercial law and was previously a partner of the Melbourne-based Ashurst law firm, with experience in mergers and acquisitions, corporate governance, continuous disclosure, related party transactions, buybacks and capital raisings.

Nanosonics said that Ms McDonald was previously the Law Council of Australia's chair of the corporations committee and was a member of the Australian Takeovers Panel.

The company said Ms McDonald held a Bachelor of Science and a Bachelor of Laws from the University of Melbourne and was currently a non-executive director of CSL.

Nanosonics said that Dr Ron Weinberger would retire from the board at the annual general meeting on November 4, 2016.

Nanosonics was up one cent or 0.3 percent to \$3.34 with 729,467 shares traded.

[PSIVIDA CORP](#)

Psivida says it has appointed Prof Jay Duker as a director.

Psivida said that Prof Duker was the Boston, Massachusetts-based New England Eye Centre director and Tufts University School of Medicine Medical Centre professor and chairman of ophthalmology.

The company said that Dr Duker's principal research interests included retinal vascular disease, drug delivery to the eye, posterior uveitis and novel imaging techniques for the posterior segment.

Psivida said that Dr Duker had published about 200 peer-reviewed journal articles and authored four books on ophthalmology including a best-selling textbook.

The company said that Dr Duker was a graduate of Harvard University and Jefferson Medical College, a director of Eleven Biotherapeutics and a co-founder and director of Hemera Biosciences.

Psivida was untraded at \$4.10.