



Biotech Daily

Monday February 15, 2016

Daily news on ASX-listed biotechnology companies

- * **ASX UP, BIOTECH DOWN: ACTINOGEN UP 14%, USCOM DOWN 10%**
- * **WEHI, QIMR GENE-MAP SCABIES FOR PREVENTION, TREATMENT**
- * **QUEENSLAND GRANTS QIMR \$153k FOR CYTOMEGALOVIRUS VACCINE**
- * **AVEXA COMPLETES TALI ACQUISITION**
- * **NUSEP RIGHTS ISSUE FOR \$2.8m**
- * **JCP TAKES 6% OF NANOSONICS**
- * **BROADFIN TAKES 9% OF BIOTA**
- * **PRESCIENT'S STEVEN YATOMI-CLARKE APPOINTED CEO ON \$310k**
- * **BIOXYNE APPOINTS DR PETER FRENCH EXECUTIVE DIRECTOR**
- * **BIO-MELBOURNE BREAKFASTS ON INVESTMENT TRENDS**

MARKET REPORT

The Australian stock market was up 1.64 percent on Monday February 15, 2016 with the ASX200 up 78.2 points to 4,843.5 points.

Twelve of the Biotech Daily Top 40 stocks were up, 15 fell, 10 traded unchanged and three were untraded. All three Big Caps were up.

Actinogen was the best, up 0.7 cents or 14.0 percent to 5.7 cents with 1.5 million shares traded, followed by Antisense up 11.4 percent to 4.9 cents with 191,000 shares traded.

Polynovo climbed 9.3 percent; Ellex rose 8.1 percent; Nanosonics was up 4.8 percent; Neuren was up 3.1 percent; Clinuvel and Sirtex rose two percent or more; with Admedus, Bionomics, Cochlear, Compumedics, CSL, Living Cell and Resmed up more than one percent.

Uscom led the falls, down 1.5 cents or 9.7 percent to 14 cents with 13,000 shares traded.

Orthocell lost 5.8 percent; Avita and Viralytics fell four percent or more; Atcor, Benitec, Mesoblast, Opthea, Prima, Tissue Therapies and Universal Biosensors shed two percent or more; IDT, Medical Developments and Osprey were down more than one percent; with Impedimed down 0.6 percent.

THE WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH

The Walter and Eliza Hall Institute says that gene mapping the human scabies mite, *Sarcoptes scabiei*, could lead to prevention and treatment of scabies infestations.

The Institute said that research undertaken in remote Aboriginal communities to promote healthy skin used genome technologies to identify the genetic makeup of the human scabies mite that caused serious health problems and potential lifelong complications. WEHI said that scabies was a contagious and extremely itchy skin condition caused by scabies mites, which were rife in many remote Aboriginal communities in Australia, affecting one in two children and one in four adults each year.

The Institute said that scabies infestations often become infected, causing serious and potentially lifelong or fatal complications, such as bacterial blood infections, or sepsis, and were associated with serious kidney and heart diseases.

WEHI said that the research was led by its Prof Tony Papenfuss and the Berghofer Queensland Institute for Medical Research Dr Katja Fischer and was published in the US Public Library of Science's journal 'Neglected Tropical Diseases'.

The article is entitled 'Mitochondrial Genome Sequence of the Scabies Mite Provides Insight into the Genetic Diversity of Individual Scabies Infections' and an abstract is available at: <http://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0004384>.

Prof Papenfuss said that genomic technologies were "critical for finding ways to prevent and control scabies".

"A shocking seven out of ten children in remote Aboriginal communities will contract scabies before they reach one year of age," Prof Papenfuss said.

Dr Fischer told Biotech Daily that it was believed that scabies were introduced with European settlement, but it had not been scientifically proven.

WEHI said that scabies wounds often became infected by group A streptococcus bacteria, which could cause rheumatic fever, acute kidney disease and rheumatic heart disease, having dramatic effects on life quality and expectancy.

"Genomic technologies have revolutionised how we treat many diseases, such as cancer," Prof Papenfuss said.

"We can now apply these technologies to tackle a major, yet neglected, health problem in Indigenous Australians," Prof Papenfuss said.

The Institute said the team analysed DNA from the energy producing mitochondria, because mitochondrial DNA evolved slowly compared with other types of DNA, making it useful for examining the relatedness of different parasite strains.

Dr Fischer said the team compared DNA sequences from human scabies mites with those from domestic pigs, which commonly have scabies.

"One of the unexpected things we found was that one patient was infected with mites that were genetically more similar to pig mites than to human mites," Dr Fischer said.

"This suggests it may be possible for certain animal strains of mites to infect humans, which we did not previously know was possible," Dr Fischer said.

"If subsequent studies confirm this finding, it could have major implications for disease control programs," Dr Fischer said.

WEHI said that prior to the study, little was known about the genetic makeup of the scabies mite and the research would help identify how it becomes resistant to certain drugs and could suggest new strategies for development of novel therapeutics.

Prof Papenfuss said that analysing the scabies mite was a challenge due to their tiny size.

"We analysed thousands of mites to get sufficient DNA for sequencing and developed bespoke analysis methods to overcome DNA contamination from the host animal and bacteria in the wound," Prof Papenfuss said.

QUEENSLAND, BIOPHARMACEUTICALS AUSTRALIA, BERGHOFFER QIMR

Queensland has provided a \$153,000 grant to the Berghofer Queensland Institute of Medical Research to accelerate development of a vaccine against cytomegalovirus.

A media release from the Queensland Government company Biopharmaceuticals Australia said that a cytomegalovirus was “the leading infectious cause of abnormalities in newborn babies, including cerebral palsy and deafness ... [and] a cause of disease and mortality in immune-suppressed patients including transplant recipients”.

QIMR Prof Rajiv Khanna said the development of a vaccine against cytomegalovirus had been given high priority by international authorities including the US National Vaccine Advisory Committee, which estimated that a 100 percent effective vaccine could save \$US4 billion in health costs each year.

“Attempts have been made previously to design a [cytomegalovirus] vaccine but have produced mixed results,” Professor Khanna said.

“The development of a [cytomegalovirus] vaccine would prevent susceptible individuals from the harmful effects of [cytomegalovirus] infection and provide massive savings in health care”, Prof Khanna said.

“At QIMR Berghofer, we have developed a new formulation,” Prof Khanna said.

“Our unique combination vaccine has been highly effective in inducing virus-specific neutralising antibodies and T-cell responses in animal models and with the support of [Biopharmaceuticals Australia] we are able to take this next important step,” Prof Khanna said.

Biopharmaceuticals Australia said that its core activity was the design and construction of a \$65 million manufacturing facility in Brisbane operated by Patheon Biologics under a long term leasing deal.

The media release said that it provided on-going support for the commercial translation of early-stage biomedical drug prospects through its \$2 million Biopharmaceutical Development Fund, offering supported-access to the manufacturing services provided by the Patheon as well as establishment grants for international companies setting-up local subsidiaries for clinical drug development.

AVEXA

Avexa says it has completed the acquisition of Tali Health (BD: Oct 12, 2015).

Avexa executive chairman Iain Kirkwood said that Tali shareholders Prof Kim Cornish would be appointed chair of the scientific advisory board, with Jefferson Harcourt and Benjamin Yeo appointed as non-executive directors.

Mr Kirkwood said the company would work with Monash University, Grey Innovation and Torus Games “to realise the significant potential of the Tali technology”.

Prof Cornish said the company’s intention was “to position Tali as the global leader in the profiling, diagnosis and treatment of attention deficits in children”.

Avexa said that Hannah Kirk had been appointed as chief research officer and was identifying the first clinical trial workshops and first development workshops to assist with the testing and product development of Tali’s initial suite of modules.

The company said that the games were designed for children with intellectual and developmental delays, such as autism and attention deficit hyperactivity disorder.

“Our primary focus is to make available the Tali technology as quickly as possible to medical professionals and educational facilities so we can start helping all those families with kids who are grappling with a range of developmental delay challenges,” Mr Kirkwood said.

Avexa was up 0.3 cents or 8.1 percent to four cents.

NUSEP HOLDINGS

Nusep says it will offer a non-renounceable, one-for-one rights issue of 284,617,002 shares at one cent a share to raise \$2,846,170 with attaching options.

In January, Nusep said it had raised \$371,240 in a placement at one cent a share and said it would seek shareholder approval to issue 37,123,956 attaching options exercisable at 1.6 cents each by November 30, 2016 (BD: Feb 1, 2016).

Today, Nusep said that rights issue was on the same terms, would be underwritten by Transocean Securities and the proceeds would be used for the settlement of debt and creditors, product development, payment of costs and for working capital.

Nusep was unchanged at 0.9 cents.

NANOSONICS

The Melbourne-based JCP Investment Partners says it has increased its substantial holding in Nanosonics from 14,192,152 shares (5.01%) to 17,650,365 shares (6.23%).

JCP said that through registered holders National Nominees, HSBC Custody Nominees, BNP Paribas Nominees and JP Morgan Nominees it bought the shares between October 14, 2015 and February 11, 2016 with the single largest purchase 790,000 shares for \$1,461,605 of \$1.85 a share.

Nanosonics climbed nine cents or 4.8 percent to \$1.96 with 803,391 shares traded.

BIOTA PHARMACEUTICALS

The Delaware-registered Broadfin Capital hedge fund has become a substantial shareholder in Biota with 3,486,711 shares or 9.0 percent of the company.

The US Securities and Exchange Commission filing said that Broadfin Capital's principal business office was in New York and the filing was made in its name along with the Cayman Islands-based Broadfin Healthcare Master Fund and Kevin Kotler.

On the Nasdaq on Friday, Biota fell five US cents or 3.65 percent to \$US1.32 (\$A1.86, equivalent to 23.25 cents a share when it departed the ASX and was trading around \$1.00) with 10,422 shares traded.

PRESCIENT THERAPEUTICS

Prescient says that founding non-executive director Steven Yatomi-Clarke has been appointed chief executive officer and managing-director, starting on \$310,000 a year.

Prescient said that Mr Yatomi-Clarke had "a distinguished career in the Australian capital markets" and was previously Patersons Securities' corporate finance director.

The company said that Mr Yatomi-Clarke held a Bachelor of Science and a Bachelor of Commerce from the University of Melbourne.

Prescient said that Mr Yatomi-Clarke would receive a base fixed remuneration of \$310,000 a year plus statutory superannuation contributions and up to 30 percent of the base salary or \$93,000 in cash as a short-term incentive, subject to financial and non-financial milestones to be achieved no later than January 31, 2017.

The company said Mr Yatomi-Clarke would be entitled to long-term incentives, subject to shareholder and regulatory approvals, of a loan to acquire up to 5,000,000 shares at a deemed issue price of 10 cents a share with \$125,000 to buy 1,250,000 shares within five business days of receiving all approvals, followed by three further tranches pending 5-day volume-weighted average prices of 20 cents, 30 cents and 40 cents.

Prescient was up 0.1 cents or 1.1 percent to 9.2 cents.

BIOXYNE

Bioxyne says it has appointed former Benitec chief executive officer Dr Peter French as an executive director.

Bioxyne said Dr French's appointment was a "strategic milestone" in the plan to extend distribution of its *Lactobacillus fermentum* probiotic culture company (PCC) probiotics.

The company said it intended to widen its probiotic distribution channels and increase sales through a range of complementary over-the-counter dietary supplements.

Bioxyne said it would invest in producing further scientific and clinical evidence of probiotics efficacy "to promote health and wellness" with Dr French leading the effort.

The company said Dr French founded stem cell storage company Cryosite in 1998 and was the managing-director of Probiomics from 2002 to 2006, prior to joining Fermiscan.

In 2011, the then Probiomics merged with Hunter Immunology to create Bioxyne, but an ongoing 320-patient, phase II trial of Hunter Immunology's HI-164OV for chronic obstructive pulmonary disease failed to meet its primary endpoint (BD: Jun 28, 2012).

Last year, Bioxyne licenced the Hunter Immunology assets to Mariposa Health which in turn on-licenced them to China's Shanxi Kangbao Biological Products (BD: Nov 11, 2015).

Last May, Nobel prize-winning scientist Prof Barry Marshall's company Ondek acquired 39,868,277 shares (19.9%) in Bioxyne (BD: Jul 30, 2009; May 20, 2015).

Today, Bioxyne said that Dr French had led the launch of six probiotic products based on the company's *Lactobacillus fermentum* PCC strain in pharmacies in Australia and Singapore, as well as setting up a number of clinical studies on PCC.

The company said that Dr French held a Bachelor of Science and Masters of Science from the University of Sydney, as well as a Doctorate of Philosophy in cell biology and a Masters of Business Administration from Deakin University.

Bioxyne was untraded at 2.3 cents.

BIO-MELBOURNE NETWORK

The Bio-Melbourne Network says its February Bio-Breakfast will cover investment trends and what they mean for biotechnology, medical technology and health innovation.

The Network said that 2015 was a record year for capital raising and investment in biotechnology and medical technology in Australia.

Data collected by Biotech Daily showed that \$1,152.7 million was raised in 2015, more than double the six-year annual average of \$511.7 million (BD: Dec 17, 2015).

The Bio-Melbourne Network said that the global investment landscape was experiencing sweeping, disruptive change, with increases in private investing, a dominance of venture capital and angel investments and the ascendancy of equity crowd-funding.

The Network said that the Bio-Breakfast, entitled 'Reshaping the landscape for investing in innovation' would allow attendees to hear the trends that are reshaping the investment landscape in Australia and across the world.

The industry organization said that speakers would be Ourcrowd managing-director Dan Bennett and Scale Investors chief executive officer Laura McKenzie.

The February 23, 2016 Bio-Breakfast will be held at Karstens, 123 Queen Street, Melbourne, with registration from 7.20am, networking buffet breakfast from 7.30am to 8am and presentations from 8am to 9am.

To register go to: <http://www.biomelbourne.org/events/view/410>.