



Biotech Daily

Friday August 19, 2016

Daily news on ASX-listed biotechnology companies

- * **ASX, BIOTECH UP: BENITEC UP 8%, COMPUMEDICS DOWN 7%**
- * **WEHI, OLIVIA NEWTON-JOHN MAP CANCER-LINKED DCLK1 PROTEIN**
- * **PRO MEDICUS REVENUE UP 57% to \$28m, PROFIT UP 98% TO \$6m**
- * **CYCLOPHARM H1 REVENUE UP 27% TO \$6.5m, PROFIT UP 59% TO \$284k**
- * **PHARMAXIS REVENUE DOWN 68% to \$19m, PROFIT TO \$16.5m LOSS**
- * **FEDERAL GOVERNMENT INNOVATION, SCIENCE GRANTS**
- * **PARADIGM PPS PASSES TOXICOLOGY, PHASE I SAFETY FOR HAY FEVER**
- * **KINETIC INCREASES, DILUTED TO 6% OF OSPREY**
- * **RACE APPOINTS DR RUDOLF STEINER EUROPE ADVISOR**
- * **RESAPP WINS TALENT UNLEASHED GONG**

MARKET REPORT

The Australian stock market was up 0.34 percent on Friday August 19, 2016 with the ASX200 up 18.9 points to 5,526.7 points. Seventeen of the Biotech Daily Top 40 stocks were up, 12 fell, nine were unchanged and two were untraded. All three Big Caps rose.

Benitec was best, up one cent or 7.7 percent to 14 cents with 80,785 shares traded.

Factor Therapeutics climbed six percent; Admedus improved 4.2 percent; Nanosonics and Oncosil were up more than three percent; Resmed and Starpharma rose more than two percent; Airxpanders, Anteo, Biotron, Ellex, Impedimed, Orthocell, Pro Medicus, Universal Biosensors and Viralytics were up more than one percent; with Cochlear, CSL, Reva and Sirtex up by less than one percent.

Compumedics led the falls, down three cents or 6.7 percent to 42 cents with 19,000 shares traded, followed by Pharmaxis down 6.25 percent to 30 cents with 1.6 million shares traded.

Living Cell lost 5.8 percent; Osprey fell 4.55 percent; Acrux, Actinogen, Medical Developments and Neuren were down more than three percent; Bionomics, Mesoblast and Polynovo shed more than one percent; with Clinuvel down 0.4 percent.

THE WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH

Walter and Eliza Hall Institute says its researchers have shown the three-dimensional molecular map of a protein that drives many types of cancers.

WEHI said that the unprecedented view of the protein named double-cortin kinase like domain 1 (DCLK1) could show how it contributes to cancer formation and progression.

The Institute said that the DCLK1 protein assembled scaffolds within cells called microtubules, which were rope-like structures giving cells shape, enabling movement and cell division, were crucial in enabling the growth and spread of cancer cells.

WEHI said that more than one in 10 stomach cancers had defective forms of DCLK1, which had been found in kidney, rectal and pancreatic cancers.

WEHI said that Dr Onisha Patel and Dr Isabelle Lucet used the Australian Synchrotron to view the three-dimensional structure of a part of DCLK1 known as the kinase domain.

The Institute said that its staff worked with the Olivia Newton-John Cancer Research Institute's Prof Matthias Ernst and Dr Michael Buchert to pinpoint the parts of DCLK1 responsible for cancer-associated mutations that appear to allow non-stop microtubule assembly, contributing to the chaotic cell division seen in cancer and providing new information about how the protein functions.

The research, entitled 'Biochemical and Structural Insights into Double-cortin-like Kinase Domain 1' had been published in the journal *Structure* and a summary is available at:

[http://www.cell.com/structure/fulltext/S0969-2126\(16\)30194-0](http://www.cell.com/structure/fulltext/S0969-2126(16)30194-0).

Dr Lucet said that in healthy cells DCLK1 could control its own function, ensuring it only assembled microtubules at the right time.

"We can think of the kinase domain of DCLK being an inbuilt controlling unit," Dr Lucet said.

"The kinase domain sits separately from the part of the protein that assembles microtubules, and can switch microtubule assembly on or off as needed," Dr Lucet said.

"The complexity of having these two different components in one protein has, until now, hindered our understanding of how DCLK1 functions normally and what goes wrong in cancer," she said.

"We decided to focus on just the regulatory kinase domain of DCLK1, because we knew that this is the part of DCLK1 that is often altered in cancers," Dr Lucet said.

Dr Patel said the team created a detailed map of the DCLK1 kinase domain using the Australian synchrotron, providing new information about how that part of the protein functioned.

"By looking at the structure of the kinase domain at the atomic level, we can now understand the effect of cancer-associated mutations located in this region," Dr Patel said.

"These mutations can lead to a non-stop microtubule building by DCLK1, and consequently chaotic cell division that is a hallmark of cancer," Dr Patel said.

"The protein structure we have generated allows us to pinpoint a crucial three dimensional pocket within DCLK1," Dr Patel said.

"We hope this will provide a first step towards designing a drug that will precisely target DCLK1, and prevent it from driving cancer growth," Dr Patel said.

"Similar protein structures have been used to design anti-cancer agents that are now in clinical use, so we're hopeful that our research may have similar applications into the future," Dr Patel said.

The research was supported by the Australian Research Council, the Australian Cancer Research Foundation, National Health and Medical Research Council and the Victorian Government Operational Infrastructure Support Scheme.

PRO MEDICUS

Pro Medicus says that revenue for the 12 months to June 30, 2016 was up 56.9 percent to \$27,577,000 with net profit after tax up 97.9 percent to \$6,368,000.

Pro Medicus said that Australian revenue was up 3.6 percent as a result of new sales of its Visage imaging products, with North America revenue up 90.0 percent and European revenue increased by 77.1 percent, including a large capital sale to a German government hospital.

The company said that an unfranked dividend of 1.5 cents per share would be paid on September 29, for holders on the record date of September 9, 2016, following an interim unfranked dividend of 1.5 cents a share.

Pro Medicus said that net tangible asset backing per share was up 30.8 percent to 17 cents, with diluted earnings per share was up 100.0 percent to 6.2 cents for the year to June 30, 2016.

The company said it had in cash and cash equivalents of \$17,107,000 at June 30, 2016, compared to \$12,935,000 at the end of the previous financial year.

Pro Medicus was up six cents or one percent to \$5.90.

CYCLOPHARM

Cyclopharm says revenue for the six months to June 30, 2016, was up 27.2 percent to \$6,456,714, with net profit after tax up 58.6 percent to \$283,614.

Cyclopharm said the six months to June 30, 2016 was its "best sales results for any first half period in the company's history: a pleasing result that also importantly highlights our competitive strengths, our relentless focus on performance excellence and the significant momentum we are building".

The company said that the results "create a platform for transformational growth as we continue to make progress in executing our three growth pillars strategy of leveraging our core Technegas product, proprietary technologies and deep expertise of nuclear medicine and lung health".

Cyclopharm said that volume sales of its Technegas Plus generators grew by four percent while unit sales of patient administration sets climbed 31 percent.

The company said in the six months to December 31, 2015, French demand was delayed until the second half, severely affecting first half sales, with 350 patient administration sets sold to France in the six months to June 30, 2016 compared with none in the previous period.

Cyclopharm said that excluding France sales patient administration sets volume increased eight percent over the prior corresponding period.

The company said its core Technegas division achieved a profit before tax of \$990,000 compared to the previous corresponding period's \$320,000 and "on an underlying basis, adjusting for FDA expenses and foreign exchange gains and losses, the Technegas division's net profit before tax for the year grew 163 percent to \$1,390,000".

Cyclopharm said it would pay an interim partly-franked dividend of 0.5 cents to investors at the record date of September 5, 2016.

The company said that net tangible assets per share climbed 63.6 percent to 18 cents, compared to 11 cents at June 30, 2015, with diluted earnings per share up 54.8 percent to 0.48 cents.

Cyclopharm said that cash and cash equivalents at June 30, 2016 was \$6,815,987 compared to \$6,444,995 at December 31, 2015.

Cyclopharm fell seven cents or five percent to \$1.33.

PHARMAXIS

Pharmaxis says that revenue for the year to June 30, 2016, fell 67.9 percent to \$19,020,000 taking last year's net profit after tax of \$18,466,000 to a \$16,463,000 loss. Pharmaxis said that sales of Bronchitol and Aridol for the year to June 30 2016 were up 1.7 percent to \$6.1 million, but other revenue was \$9.4 million compared to \$52.5 million for the year to June 30, 2015, which included \$40.6 million from Boehringer Ingelheim for its phase I anti- inflammatory drug candidate PXS4728A (BD: Mar 12, May 18, 2015). Pharmaxis said that net tangible assets per share fell 36.4 percent to seven cents, with a diluted loss per share of 5.2 cents and cash and cash equivalents of \$39,209,000 at June 30, 2015 compared to \$54,138,000 at June 30, 2015. Pharmaxis fell two cents or 6.25 percent to 30 cents with 1.6 million shares traded.

FEDERAL GOVERNMENT

The Federal Government has announced a raft of grants for innovation, start-ups, research and women in science technology, engineering and maths (STEM). The Minister for Industry, Innovation and Science Greg Hunt said 20 businesses would be offered \$11.3 million, ranging from \$213,000 to \$1 million, matched dollar-for-dollar by recipients under the Entrepreneurs' Program "to help break into new and international markets"; along with grants of up to \$100,000 from the Business Research and Innovation Initiative (BRII) to address Government service delivery challenges, leading to eligibility for a grant of up to \$1 million to develop a prototype or proof-of-concept. The Government media releases said the BRII applications would close on November 30, 2016 and for more information go to: www.business.gov.au/BRII or telephone: 13 28 46. Mr Hunt's office said that 74 small and medium businesses and researchers would receive \$7,000 in priming grants to develop products and services under the \$4.9 million Global Connection Fund and for more information go to: <http://globalconnectionsfund.org.au>. The Federal Government said that a new funding round under the Cooperative Research Centres Program had opened offering up to \$3 million over three years to develop products, services or processes and applications close on October 26, 2016. The Government said that the \$7.9 million science, technology, engineering and maths (STEM) Business Fellowship program supported links between businesses and researchers to increase productivity and develop new products and would provide grants up to \$105,000 a year to help small and medium businesses undertake two to three year projects with early career researchers from Australian research organizations. The media release said that the grants had co-investment from participating research organisations and matching cash contributions from small and medium businesses and the program had "the capacity to deliver up to \$24 million of research projects over the next four years". For more information, go to: www.csiro.au/SMEconnect. A media release from Mr Hunt and the Minister for Employment and for Women Michaelia Cash said that the Government would provide \$8 million to support women in science, technology, engineering and maths (STEM), and Entrepreneurship. The Ministers said that applications were open for grants up to \$250,000 to support outreach projects aimed at girls and women to foster interest in STEM and entrepreneurship, to develop innovation and entrepreneurial skills, and to build professional networks. The media release said that organisations or consortiums with an interest in supporting women in STEM and entrepreneurship could find more information on the grants, including application forms at www.business.gov.au.

PARADIGM BIOPHARMACEUTICALS

Paradigm says its 18 patient phase I trial of intra-nasal pentosan polysulfate sodium for allergic rhinitis has been shown to be safe and it will proceed to a phase II trial.

Paradigm said that the randomized, double-blind, placebo-controlled trial of pentosan polysulfate sodium (PPS) for allergic rhinitis, or hay fever, enrolled participants in two cohorts of two dose levels monitored blood analysis, daily clinical observations and a general and nasal examination, with a final report due in October 2016.

Paradigm said that in the absence of any significant safety concerns in any treated participant, the data and safety monitoring committee had endorsed the proposed dosing regime for a second clinical trial.

Paradigm operations manager Dr Claire Kaufman said the trial was “an exciting milestone” and preparation for the phase II randomized, double-blind, placebo-controlled challenge study was underway, targeting a start date in December 2016.

The company said that a 28-day, intra-nasal toxicology study in rats concluded that there were “no observed adverse effects at any tested dose ... with results supporting a safety margin of up to 20 times the estimated human dose”.

Paradigm said that the market for allergic rhinitis was about \$US11 billion and was dominated by anti-histamines and corticosteroids with market surveys highlighting patient dissatisfaction and the need for effective therapy.

The company said that its Rhinosul had both anti-histamine and anti-inflammatory effects without the known side-effects of anti-histamines and steroids.

Paradigm was untraded at 39 cents.

OSPREY MEDICAL

The Melbourne-based Kinetic Investment Partners says it has increased its holding in Osprey from 8,670,725 shares to 11,172,057 but has been diluted to 5.80 percent.

Kinetic said it bought, sold and transferred shares trades between December 12, 2014 and August 10, 2016, with 3,986,426 shares acquired for \$1,864,482 or 46.8 cents a shares and 696,763 shares were sold for \$404,308 or 58.0 cents a share.

Earlier this month Osprey raised \$28 million at 28 cents per Chess depositary interest (CDI) and offered a share plan to raise a further \$1 million (BD: Aug 4, 2016).

Kinetic is part of Challenger Financial Services, its principals are Jonathan Findlay, Richard Sharp and Mark Skocic.

Osprey fell 1.5 cents or 4.55 percent to 31.5 cents.

RACE ONCOLOGY

Race says it has appointed oncologist Dr Rudolf Steiner as its scientific and clinical affairs advisor in Europe.

Race said Dr Steiner would help develop clinical protocols for US studies of bisantrene for cancer and provide technical oversight for the named patient sales program in Europe.

The company said that Dr Steiner trained at Zurich University Hospital and later worked at Guy's Hospital in London and at Cancer Research UK.

Race said that Dr Steiner worked for Ciba-Geigy, now Novartis, in Switzerland, where he was responsible for phase I and IIa studies in oncology and later returned to clinical practice at the St Gallen Comprehensive Cancer Center and Zurich University Hospital.

The company said that Dr Steiner had initiated and guided several clinical study programs that resulted in approved cancer drugs.

Race was unchanged at 21 cents.

[RESAPP HEALTH](#)

Resapp says it has won 'Best Tech IPO/Venture Capital Raising' at the 2016 Talent Unleashed Awards Global Grand Finals in Sydney.

The Sydney-based Talent is an information technology and telecommunications recruitment agency.

Resapp said that the judging panel included Apple cofounder Steve Wozniak and Virgin Group founder Richard Branson and the awards recognized "disruptive entrepreneurs who utilise innovative technology solutions to truly make an impact in their field".

Resapp said the prizes included a meeting with Mr Wozniak and a tour of Silicon Valley, California technology companies.

Resapp was up 1.5 cents or 4.5 percent to 35 cents with 4.2 million shares traded.