

Biotech Daily

Thursday November 1, 2018

Daily news on ASX-listed biotechnology companies

- * OCTOBER BDI-40 DOWN 16%, ASX200 6%, BIG CAPS 7%, NBI 15%
 - VOLPARA UP 52%; BIONOMICS DOWN 86%, AIRXPANDERS 39%
- * TODAY: ASX, BIOTECH UP: NEUREN UP 12%; AIRXPANDERS 12%
- * REVA LAUNCHES FANTOM ENCORE; POST-MARKET TRIAL
- * MTP CONNECT, FEDERAL GOVERNMENT: '\$6b REGENERATIVE MEDICINE'
- * INDIA APPROVES POLYNOVO NOVOSORB; MYOVATEC DISTRIBUTOR
- * CARDIEX, BLUMIO WEARABLE BP SENSOR TRIAL
- * OVENTUS RECEIVES \$1m FEDERAL R&D TAX INCENTIVE
- * CELLMID REPAYS R&D LOAN, EXPANDS US ÉVOLIS AVAILABILITY
- * RACE APPOINTS BIOSYNERGY FOR BISANTRENE DEALS
- * CREDIT SUISSE BELOW 5% IN BARD1
- * CRESO LAUNCHES CANNAQIX50 FOR CHRONIC PAIN IN BRAZIL
- * MGC REQUESTS 'CANNAGLOBAL, MGC DERMA SALE' TRADING HALT
- * MICRO-X HAS LESS THAN TWO QUARTERS CASH
- * AVITA AGM TO VOTE ON 15m CEO DR MIKE PERRY OPTIONS
- * NEUROTECH AGM FOR 609k DIRECTOR SHARES
- * FISHER & PAYKEL APPOINTS NEVILLE MITCHELL DIRECTOR
- * ADMEDUS APPOINTS STEPHEN DENARO DIRECTOR, CO SEC
- * DR DEAN MOSS REPLACES AUSBIOTECH DIRECTOR LAWRENCE GOZLAN
- * AUSBIOTECH J&J GONGS: DR ANNA LAVELLE, MDGH, TELIX, MICROBA

MARKET REPORT

The Australian stock market was up 0.18 percent on Thursday November 1, 2018 with the ASX200 up 10.5 points to 5,840.8 points. Eighteen of the Biotech Daily Top 40 stocks were up, 13 fell, five traded unchanged and four were untraded.

Neuren was the best, up 15.5 cents or 12.35 percent to \$1.41 with 376,053 shares traded. Clinuvel and Uscom climbed more than seven percent; Paradigm was up 5.9 percent; Prescient and Pro Medicus improved more than four percent; Bionomics, Mesoblast and Osprey were up more than three percent; Compumedics, Immutep, Oncosil, Polynovo, Starpharma and Universal Biosensors rose more than two percent; Cochlear, Ellex, Nanosonics and Pharmaxis were up more than one percent; with CSL up 0.15 percent.

Airxpanders led the falls, down 0.8 cents or 11.9 percent to 5.9 cents, with 581,515 shares traded. Reva lost 10 percent; Opthea fell 7.9 percent; Impedimed was down 6.25 percent; LBT and Orthocell fell four percent or more; Benitec was down three percent; Actinogen, Avita and Prana shed more than two percent; Medical Developments and Telix were down by more than one percent; with Volpara and Resmed down by less than one percent.

BIOTECH DAILY TOP 40 INDEX (BDI-40)

Following an exceptional September, the October Biotech Daily Top 40 Index (BDI-40) followed the US markets and the ASX down, losing all the previous month's gains.

Apart from ill-informed funds and punters selling into, and exacerbating, a falling market, Bionomics shed \$415 million from its market capitalization on the failure of BNC210 to show efficacy for post-traumatic stress disorder, having climbed \$249 million or 106.4 in the lead-up to the results.

It was a perfect example of "buy on rumor and sell on fact".

But there were other major falls, with Pro Medicus losing \$346 million, Clinuvel retreating \$288 million and Nanosonics shedding \$177 million.

Twenty-eight of the BDI-40 companies fell, with just seven up and five unchanged.

Volpara was the best of the October seven, up \$84 million or 52.2 percent to \$245 million. Medical Developments recovered 15.3 percent to \$316 million, followed by Prescient (11.7%), Opthea (10.7%), Telix (7.9%), Prana (4.3%) and Neuren (2.4%).

Bionomics led the falls, down \$415 million or 85.9 percent to \$68 million, followed by Airxpanders (39.3%), Osprey (28.9%), Clinuvel (27.3%), Pro Medicus (26.8%), Genetic Signatures (22.4%), Compumedics (20.0%), Cynata (18.3%), Orthocell (16.7%), Nanosonics (16.4%), Impedimed (11.6%), Pharmaxis (11.5%), Avita (11.3%), Immutep (11.3%), and Optiscan (11.1%).

The collective three Big Caps of Cochlear, CSL and Resmed (which are not included in the BDI-40) fell for the second month in a row, down 7.0 percent in October to its lowest level since May 31, but still up 31.8 percent for the year.

CSL retreated 6.5 percent to \$85,156 million, Cochlear fell 11.4 percent to \$10,249 million, with Resmed down 6.9 percent to \$21,089 million.

Outside the BDI-40, Biotron jumped 252.4 percent for the month and 640 percent for the year to \$74 million on positive HIV trial news, with Antisense, Oventus and Resonance all backing the downward trend.

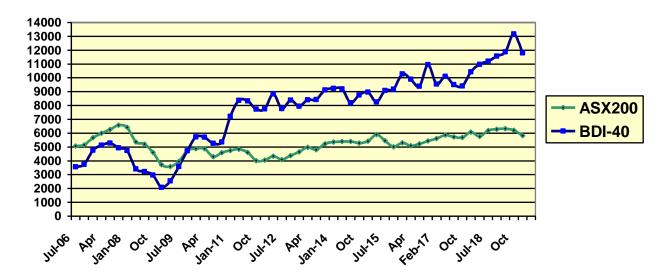
The 15 companies in Cannabis Corner fell 8.9 percent to the lowest level since December 31, 2017. Four companies were up, eight were down and three were unchanged.

The Nasdaq Biotechnology Index fell 14.6 percent in October, but like the BDI-40, was virtually unchanged compared to October 31, 2017.

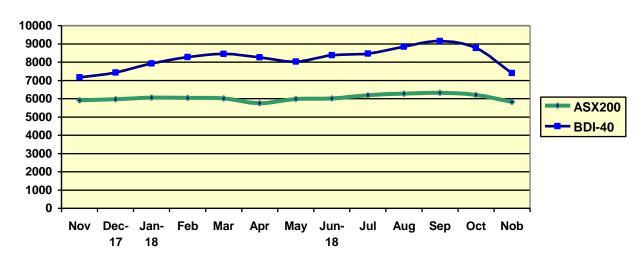
Eyepoint (Psivida) fell 38.9 percent to \$225 million, Protagonist shed 9.9 percent to \$272 million and Redhill was down 8.5 percent to \$238 million, while Vaxart (Biota) was up \$7.1 percent to \$30 million.

Avita will replace Bionomics in the BDI-20, with Bionomics moving to the Second 20.

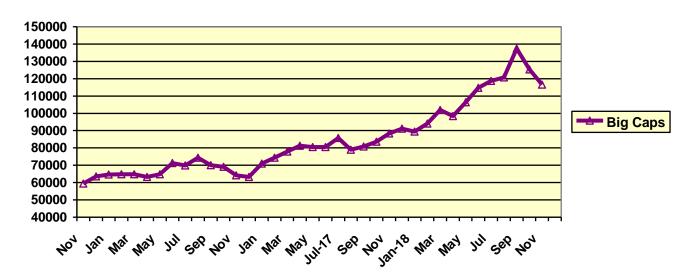
BDI-40 v ASX200 Jun 30, 2006 to Oct 31, 2018- Adjusted



BDI-40 (\$m) v S&P ASX 200 - Oct 31, 2017 - Oct 31, 2018 (current, raw data)



Big Caps \$m (Cochlear, CSL, Resmed) Oct 31, 2015 - Oct 31, 2018



REVA MEDICAL

Reva says it has launched the Fantom Encore bio-resorbable scaffold and implanted the first coronary stent in the Fantom Encore in post-market trial.

Reva said the implant was performed at the Kiel, Germany-based Universitätsklinikum Schleswig-Holstein by Dr Matthias Lutz, who was a co-principal investigator of the post-market trial.

The company said the Fantom Encore was a third-generation coronary bio-resorbable scaffold with a thin strut profile compared to other commercially available bio-resorbable stents.

Reva said that Fantom Encore was available in Germany, Switzerland, Austria, Belgium, the Netherlands, Luxembourg, Italy and Turkey.

Dr Lutz said that the Fantom Encore was "easy to use due to its thinner strut profile, x-ray visibility and strength".

"With these device improvements and the investment in the Fantom post-market trial, Reva is partnering with physicians to advance the field of bio-resorbable scaffolds," Dr Lutz said.

Reva chief executive officer Dr Reggie Groves said the commercial launch of Fantom Encore "solidifies Reva's technological lead in bioresorbable scaffolds".

"No other company has a thin strut profile, x-ray visible [bio-resorbable scaffold]," Dr Groves said.

The company said the post-market trial was a 1,500-patient, single arm study at up to 100 European centres, to assess the continued safety and performance of Fantom and Fantom Encore, with a primary endpoint of target lesion failure at 12 months and patients to be followed for five years.

Reva fell 2.5 cents or 10 percent to 22.5 cents.

FEDERAL GOVERNMENT, MTP CONNECT

The Federal Government says that if Australia can take five person of the world's \$120 billion regenerative medicine market it could secure \$6 billion in revenue.

A media release from the Federal Minister for Industry, Science and Technology Karen Andrews said that a report from the Federal Government funded MTP Connect, titled 'Regenerative Medicine: Opportunities for Australia' "highlights the future of this type of medicine, which uses cells and tissues to treat injury and disease by harnessing the body's own recovery processes".

The media release said that Australian companies could secure \$6 billion in annual revenue from regenerative medicine, potentially creating 6,000 new jobs by 2035. Ms Andrews said that the market was estimated to reach \$120 billion in global revenue by 2035.

If Australia were to capture a five percent share of the market, this would represent \$6 billion in annual revenue and create approximately 6,000 jobs," the MTP Connect report said.

"The report highlights Australia's potential to capture a share of the regenerative medicine sector, identifying areas where we can build on our competitive strengths, particularly our highly skilled workforce," Ms Andrews said.

"It calls for more capability development and partnerships to better capture this market.

"Across Australia, there are 45 research institutes and universities, 32 companies and over 300 research group and labs, employing 1,200 researchers in the sector and there is a strong base for future development," Ms Andrews said.

For more information about MTP Connect visit https://www.mtpconnect.org.au/.

POLYNOVO

Polynovo says India has approved Novosorb biodegradable temporizing matrix, with the New Delhi-based Myovatec Surgical Systems Pvt Ltd appointed its distributor.

Polynovo said it had registered Novoskin and Novoderm as trademarks in India, with Novoskin the company name and Novoderm to be used in lieu of Novosorb biodegradable temporizing matrix (BTM) as the product trademark in India.

The company said that Myovatec had 12 direct sales representatives with "a good knowledge of the key opinion leaders in India".

Polynovo said that Myovatec promoted a range of specialized surgical products including several in the plastic and reconstructive segments, and the company had "close relationships with the plastic surgery community which is approximately 1,400 surgeons". Polynovo chief executive officer Paul Brennan said the Indian market was "a large and expanding one and partnering with Myovatec will enable Polynovo to quickly leverage their market knowledge, the key opinion leaders and navigate the rapidly changing and developing health system".

Polynovo was up 1.5 cents or 2.5 percent to 60.5 cents with 1.85 million shares traded.

CARDIEX

Cardiex says that San Francisco partner Blumio Inc will conduct a 200-subject study of its non-invasive wearable blood pressure sensor.

Cardiex said the study was due to begin this month and aimed "to further refine the accuracy of Blumio's non-invasive wearable blood pressure sensor which is proposed to be integrated with Cardiex's ... blood pressure analytics technology".

The company said the non-randomized study at the Burlington County, New Jersey Deborah Heart and Lung Center would compare the signal from the Blumio sensor with signals from the current standard in blood pressure monitoring in hospitals, the invasive arterial line, as well as to automated blood pressure cuffs.

Cardiex said it expected that the data collected from the study would further validate Blumio's technology.

The company said it previously entered into a collaboration and development agreement with Blumio to co-develop wearable blood pressure technology based on Blumio's sensor and Cardiex's blood pressure analytics algorithms (BD: Mar 14, 2018).

Blumio chief executive officer Catherine Liao said the study would "allow us to demonstrate our sensor's accuracy as compared to an arterial line, which is the gold standard in blood pressure monitoring in hospitals ... a critical step towards the commercialization of our sensor technology".

Cardiex chief executive officer Craig Cooper said the study was "a major milestone in the development of Blumio's continuous, non-invasive blood pressure sensor".

Mr Cooper said the combined technologies would "disrupt the diagnosis and treatment of hypertension and related cardiovascular disorders, a multi-billion-dollar market". Cardiex fell 0.1 cents or 2.7 percent to 3.6 cents.

OVENTUS MEDICAL

Oventus says it has received \$1,039,988 from the Australian Tax Office under the Federal Government Research and Development Tax Incentive program.

Oventus said the rebate related to research and development activities for the year to June 30, 2018.

Oventus was unchanged at 30 cents.

CELLMID

Cellmid says it has repaid the remaining \$1 million of the \$2 million research and development loan facility provided by Platinum Road in 2017 (BD: Mar 2, 2017). Cellmid said the loan was due to be repaid at the end of February 2019, with a simple interest of 12 percent a year, payable in arrears, but it repaid \$1 million following its \$10 million placement and share plan, saving \$50,000 in interest and by repaying the balance early, it would save a further \$40,000 in interest (BD: Jul 31, Sep 3, 2018). Separately, Cellmid said it had completed its 17-shop US Évolis Professional products launch and all three retail partners, Bloomingdales, Neiman Marcus and Soft Surroundings, would provide additional locations for the products. Cellmid was up 1.5 cents or 4.6 percent to 34 cents.

RACE ONCOLOGY

Race says it has appointed director Dr John Cullity's Biosynergy Partners LLC for licencing and other deals for Bisantrene for acute myeloid leukaemia (AML). Race chief executive officer Peter Molloy said the company was "particularly interested in exploring licencing deals, where the partner carries the cost of the proposed AML registration trial ... [and] we would also like to see upfront licence fees". Race said no retainer would be paid, but Biosynergy would receive 6.0 percent of the total consideration to \$US25 million and 3.0 percent over \$US25 million, with a minimum fee equivalent to 10 percent of the first \$US6 million and a \$US5 million maximum. The company said the agreement excluded any deal with the MD Anderson Cancer Research Center or from the existing agreement with Tom Lee (BD: Oct 1, 2018). Race was up 8.5 cents or 80.95 percent to 19 cents with 75.7 million shares traded.

BARD1 LIFE SCIENCES

Credit Suisse Australia says it has ceased its substantial shareholding in Bard1 from the 52,210,034 shares (6.30%) it held earlier this week (BD: Oct 29, 2018).

Credit Suisse said it bought and sold shares between October 24 and 26, 2018 with the largest sale 9,062,641 shares for \$255,566 or 2.8 cents a share.

Bard1 fell 0.4 cents or 10.5 percent to 3.4 cents with 198.2 million shares traded.

CRESO PHARMA

Creso says it has begun the import and sale of medical marijuana product, Cannaqix50 for chronic pain patients in Brazil through import partner Meddepot Brasil.

Creso said that Cannaqix50 was designed for patients with chronic pain including pain related to neuropathic and cancer diseases.

The company said it had a three-year import and direct-to-patient delivery agreement with the San Paulo, Brazil-based Meddepot Brasil.

Creso was up 6.5 cents or 15.7 percent to 48 cents.

MGC (MEDICAL GRADE CANNABIS) PHARMACEUTICALS

MGC has requested a trading halt "pending the release of an announcement ... regarding the MGC Derma sale transaction with Cannaglobal".

Trading will resume on November 5, 2018 or on an earlier announcement.

MGC last traded at 5.1 cents.

MICRO-X

Micro-X says its expected net operating cash burn for the three months to December 31 is \$5,281,000 with cash at September 30, 2018 of \$2,658,000.

Micro-X said receipts from customers for the three months to September 30 was \$431,000 and it received \$3,000,000 from the issue of notes after that date (BD: Oct 1, 2018).

The company did not provide any further explanation.

Micro-X was up half a cent or 1.4 percent to 36.5 cents.

AVITA MEDICAL

Avita shareholders will vote to issue of 15,000,000 options to chief executive officer Dr Mike Perry, exercisable at the price on the day of issue within 10 years.

Avita said Dr Perry's options would vest in multiple tranches, pending 100 percent, 200 percent and 300 percent premiums to the share price on issue, along Biomedical Advanced Research and Development Authority (BARDA) contract milestones and the prior achievement of the US approval of Recell for burns.

The company said the meeting would vote on the remuneration report, the employee share plan, the 10 percent placement capacity and the election of director Lou Panaccio. The meeting will be held at K & L Gates, Level 25, The Rialto, 525 Collins Street, Melbourne on November 30, 2018 at 10am (AEDT).

Avita fell 0.2 cents or 2.15 percent to 9.1 cents with 4.5 million shares traded.

NEUROTECH

Neurotech will vote to issue chief executive officer Wolfgang Storf and scientific advisory board chair Dr David Cantor 608,857 shares.

Neurotech said that Mr Storf's 466,000 shares would be deemed at 16 cents each and Dr Cantor's 142.857 shares would be deemed at 14 cents each.

The company shareholders would vote on the remuneration report, the 10 percent placement capacity and the election of directors Mr Storf, Dr Cantor and Dr Neale Fong. The meeting will be held at Level 2, Queen Victoria I Building, 250 St Georges Terrace, Perth, Western Australia on November 30, 2018 at 8.30am (AWST). Neurotech was untraded at eight cents.

FISHER & PAYKEL HEALTHCARE CORP

Fisher & Paykel Healthcare says it has appointed former Cochlear chief financial officer Neville Mitchell as a non-executive director, effective from November 12, 2018. Fisher & Paykel said that Mr Mitchell had "extensive global financial and medical device experience" and from 1995 to 2017 was Cochlear's chief financial officer and company secretary.

The company said that Mr Mitchell was currently a non-executive director of Sonic Healthcare, Osprey Medical and QBiotics Group, as well as a member of the Australian Board of Taxation and a director of the South East Sydney Local Health District Board. Fisher & Paykel said Mr Mitchell replaced Dr Arthur Morris, who retired in August 2018. Fisher & Paykel was up 23 cents or 1.8 percent to \$12.76 with 572,414 shares traded.

ADMEDUS

Admedus says it has appointed Stephen Denaro as a non-executive director and company secretary, effective immediately.

Admedus said Mr Denaro was a chartered accountant and registered tax agent with more than 30 years' experience in publicly-listed companies, including Alchemia and Impedimed and had been employed as chief financial officer, company secretary and director.

The company said that Mr Denaro had managed investment acquisitions and subsequent funding, and had experience in corporate equity, treasury and debt funding management. Admedus said that Mr Denaro would "perform the duties of company secretary pursuant to the terms of a consultancy agreement" and would be paid \$50,000 a year excluding GST for time spent as company secretary.

Admedus was in a suspension for a recapitalization and last traded at 13.5 cents.

AUSBIOTECH

Ausbiotech says that Dr Dean Moss has replaced Lawrence Gozlan as a director. Ausbiotech said that Dr Moss had more than 30 years' experience in science, academia, business, management and commercialization in Australia, the US and the UK and was currently the chief executive officer of Uniquest, the commercialization company managing the intellectual property of the University of Queensland.

The industry organization said that Dr Moss was a director of several Australian biotechnology companies and a member of the investment committee of the pre-seed venture funds Uniseed, the Medical Research Commercialisation Fund and the New Zealand Government's Kiwinet.

Ausbiotech said that previously Dr Moss was an executive with Agen Biomedical, Launch Diagnostics, Amrad ICT, Amrad Biotech, United Drug and established York Medical Technologies in the UK in 2004.

AUSBIOTECH JOHNSON & JOHNSON INNOVATION

Ausbiotech says Dr Anna Lavelle, Medicines Development for Global Health, Telix and Microba have won the 2018 Johnson & Johnson Innovation Industry Excellence Awards. Ausbiotech said the awards were announced at its 2018 national conference in Brisbane, with former Ausbiotech chief executive officer Dr Lavelle winning the industry leadership award, Medicines Development for Global Health taking the company of the year prize, with Telix and Microba, the joint emerging companies of the year.

Johnson & Johnson Innovation executive Kathy Connell said her company was "extremely proud to sponsor these awards and celebrate the passion and creativity of these extraordinary recipients as they advance biomedical research and healthcare innovation". Ausbiotech chief executive officer Lorraine Chiroiu said the awards "recognize the notable highlights of the abundant excellence in our industry and encourage us with what can be achieved when innovation is accompanied by the business acumen needed to bring new health technologies to patients".

BIOTECH DAILY TOP 40 WITH MARKET CAPITALIZATION AT OCTOBER 31, 2018

| Company \$Am | Nov-17 | Oct-18 | Nov-18 |
|----------------------|--------|--------|--------|
| Cochlear | 10,124 | 11,574 | 10,249 |
| CSL | 62,879 | 91,094 | 85,156 |
| Resmed | 15,407 | 22,643 | 21,089 |
| BDI-20 | | | |
| Avita | 36 | 141 | 125 |
| Clinuvel | 334 | 1,054 | 766 |
| Compumedics | 56 | 80 | 64 |
| Cyclopharm | 68 | 73 | 72 |
| Ellex | 138 | 101 | 93 |
| Impedimed | 276 | 172 | 152 |
| LBT Innovations | 44 | 22 | 20 |
| Medical Developments | 372 | 274 | 316 |
| Mesoblast | 628 | 1,038 | 990 |
| Nanosonics | 898 | 1,076 | 899 |
| Neuren | 248 | 123 | 126 |
| Opthea | 137 | 121 | 134 |
| Pharmaxis | 85 | 122 | 108 |
| Polynovo | 216 | 395 | 388 |
| Immutep | 66 | 142 | 126 |
| Pro Medicus | 692 | 1,291 | 945 |
| Reva | 289 | 104 | 104 |
| Starpharma | 508 | 587 | 542 |
| Telix | 78 | 165 | 178 |
| Volpara | 62 | 161 | 245 |
| Second 20 | | | |
| Actinogen | 32 | 56 | 52 |
| Admedus | 60 | 48 | 48 |
| Airxpanders | 216 | 61 | 37 |
| Avita | 36 | 141 | 125 |
| Benitec | 41 | 46 | 42 |
| Bionomics | 219 | 483 | 68 |
| Cynata | 58 | 131 | 107 |
| Dimerix | 17 | 17 | 17 |
| Factor Therapeutics | 37 | 60 | 60 |
| Genetic Signatures | 39 | 76 | 59 |
| Imugene | 52 | 76 | 72 |
| ITL Health | 40 | 15 | 14 |
| Oncosil | 66 | 125 | 123 |
| Optiscan | 43 | 27 | 24 |
| Orthocell | 24 | 24 | 20 |
| Osprey | 132 | 76 | 54 |
| Paradigm | 40 | 114 | 107 |
| Prescient | 15 | 17 | 19 |
| Prana | 35 | 23 | 24 |
| Universal Biosensors | 62 | 42 | 42 |
| Uscom | 20 | 21 | 19 |
| | - | | - |

^{*} Biotech Daily editor, David Langsam, owns shares in Acrux, Benitec, Innate, Mesoblast, Nanosonics, Neuren, Patrys, Polynovo, Prana, Telix, Volpara and non-biotechnology stocks. Through Australian Ethical Superannuation he has an indirect interest in a range of other biotechnology companies: http://www.australianethical.com.au/who-we-invest-in. These holdings are liable to change.

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