



Biotech Daily

Monday July 1, 2019

Daily news on ASX-listed biotechnology companies

- * **TODAY: ASX, BIOTECH UP: KAZIA UP 10%; GENETIC SIGNATURES DOWN 11%**
- 13-YEAR BDI-40 UP 339%, BIG CAPS UP 681%, ASX200 UP 30%**
- 12-MONTH BDI-40 UP 40%, BIG CAPS UP 13%, ASX200 UP 7%, NBI DOWN 1%**
- 12-MONTH STARS: AVITA 792%, GENETIC SIGNATURES 268%, PARADIGM 236%**
- * **PROBIOTEC \$28m FOR AUSTRALIAN BLISTER SEALING; PROFIT UP**
- * **AVITA: 'RECELL REDUCES DIABETIC FOOT ULCERS 83%'**
- * **VOLPARA RETAIL RIGHTS RAISE \$4.8m; TOTAL \$55m**
- * **VISIONEERING RIGHTS RAISE \$5.8m, TOTAL \$11.1m**
- * **EMVISION PREPARES STROKE BRAIN SCANNER PILOT TRIAL**
- * **BIOINTELECT, BOSTON'S NEW PERSPECTIVES PARTNER FOR SUPPORT**
- * **US PATENT FOR SIENNA HTERT CANCER TEST**
- * **RESAPP RECRUITS 200 OF 250 SLEEP STUDY PATIENTS**
- * **HERAMED FOETAL CARDIAC MONITOR AT BRAZIL'S HAPVIDA HOSPITALS**
- * **AUSCANN, TASMANIAN ALKALOIDS MARIJUANA RESIN DEAL**
- * **MEDIBIO SIGNS COMPASS FOR 1st UK ILUMEN TEST**
- * **CRYSTAL AMBER EXTENDS GI DYNAMICS CONVERTIBLE NOTE DATE**
- * **ADMEDUS REQUESTS 5th FUNDING SUSPENSION EXTENSION**
- * **REGAL REDUCES TO 6.6% OF ONCOSIL**
- * **DIRECTOR DR WILLIAM GARNER REDUCES TO 14% IN RACE**

MARKET REPORT

The Australian stock market was up 0.44 percent on Monday July 1, 2019, with the ASX200 up 29.3 points to 6,648.1 points. Twenty of the Biotech Daily Top 40 stocks were up, 11 fell, six traded unchanged and three were untraded. All three Big Caps were up. Kazia was the best, up 3.5 cents or 10 percent to 38.5 cents, with 31,019 shares traded. Both Medical Developments and Oncosil climbed 9.4 percent; LBT was up 8.7 percent; Orthocell improved 7.8 percent; Dimerix was up 5.9 percent; Avita and Compumedics rose more than four percent; Alterity, Ellex and Telix were up more than three percent; Prescient and Resmed rose two percent or more; Cochlear, Impedimed, Nanosonics, Neuren and Universal Biosensors were up more than one percent; with Cynata, CSL, Pro Medicus, Starpharma and Volpara up by less the one percent.

Genetic Signatures led the falls, down 15 cents or 11.1 percent to \$1.20, with 71,358 shares traded. Imugene lost 6.25 percent; Benitec fell 5.3 percent; Mesoblast and Optiscan were down more than three percent; Antisense, Clinuvel, Cyclopharm, Osprey and Paradigm shed more than two percent; with Polynovo down 1.6 percent.

BIOTECH DAILY TOP 40 INDEX (BDI-40)

June 30 marked a 13-year reckoning for the Biotech Daily Top 40 Index (BDI-40) *, up 220.8 percent on the raw collective market capitalization, and when adjusted for comings and goings like the ASX200, it was up 339.4 percent over the 13 years to June 30, 2019.

The ASX200 was up 30.4 percent over 13 years, but the collective market capitalization of the three Big Caps of Cochlear, CSL and Resmed (which are not included in the BDI-40) climbed a staggering 681.3 percent from just \$17,156 million in 2006 to \$134,039 million.

Four of the BDI-20 stocks have weathered the storms of 13 years and 10 of the BDI-40 have survived the distance.

Clinuvel is the 13-year best, up 2,484.6 percent from \$65 million in 2006 to \$1,680 million on June 30, 2019, with Mesoblast up 894.4 percent from \$71 million to \$706 million. Polynovo joined the Billion Dollar Club in June, up 817.1 percent from the then Metabolic's \$111 million, to \$1,018 million on June 30, followed by Starpharma up 310.6 percent to \$518 million, Circadian-Opthea (288.4%), Neuren (202.6%) and Benitec (114.3%).

Others have not done so well. Pharmaxis has fallen 72.3 percent from \$364 million to \$101 million, Alterity-Prana improved just \$1 million in 13 years to \$25 million, Optiscan has fallen 43.4 percent to \$27 million, with Antisense up 58.3 percent to \$19 million. Tenacious among the surviving demotions are several 2006 BDI-40 stocks including Acrux, Alchemia, Bionomics, Genetic Technologies, Living Cell, Phosphagenics (Avecho) and Phylogica.

For the year to June 30, 2019 the BDI-40 was up 40.3 percent, the Big Caps were up 12.8 percent, the ASX200 improved 6.8 percent and the NBI fell 0.7 percent.

The BDI-20 saw 16 companies up for the year, with just four falls. The Second 20 saw just five rises for the year and 15 falls.

Avita was the best of the BDI-20, up 792.0 percent from \$88 million 12 months ago to \$785 million, followed by Genetic Signatures (268.4%), Paradigm, (236.3%), Clinuvel (218.8%), Pro Medicus (213.8%), Polynovo (189.2%), Volpara (154.6%), Telix (110.1%), Nanosonics (77.9%), Opthea (57.5%), Cyclopharm (48.5%) and Starpharma (19.9%).

For the year to June 30, 2019, Neuren led the BDI-20 falls, down \$184 million or 61.5 percent to \$115 million, followed by Ellex (13.6%), Immutep (9.6%) and Cynata (2.3%).

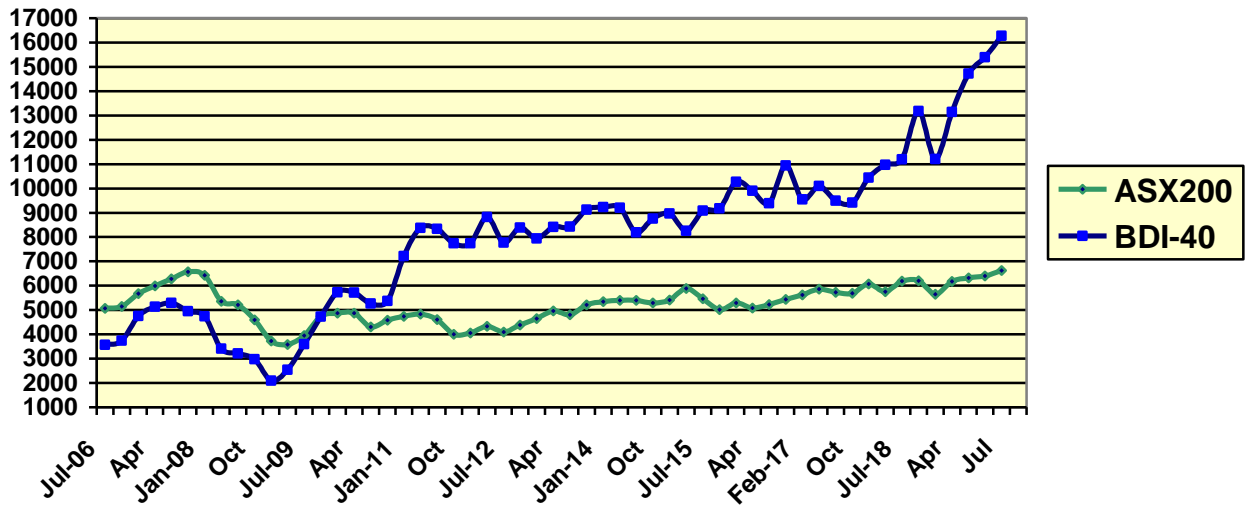
For the month of June, 12 of the BDI-20 stocks were up, with five up by more than 10 percent and eight fell. The Second 20 had five up (four by more than 10 percent) and 13 fell, of which 11 fell by more than 10 percent.

On the Nasdaq, Vaxart (Biota) was unchanged at \$15 million, Eyepoint (Psvida) was up 3.3 percent to \$248 million, Queensland's Protagonist was up 19.2 percent to \$404 million and Israel's Redhill with Australian assets was up 12.4 percent to \$263 million. Cannabis Corner's 18 companies slipped 2.7 percent despite the addition of two new companies.

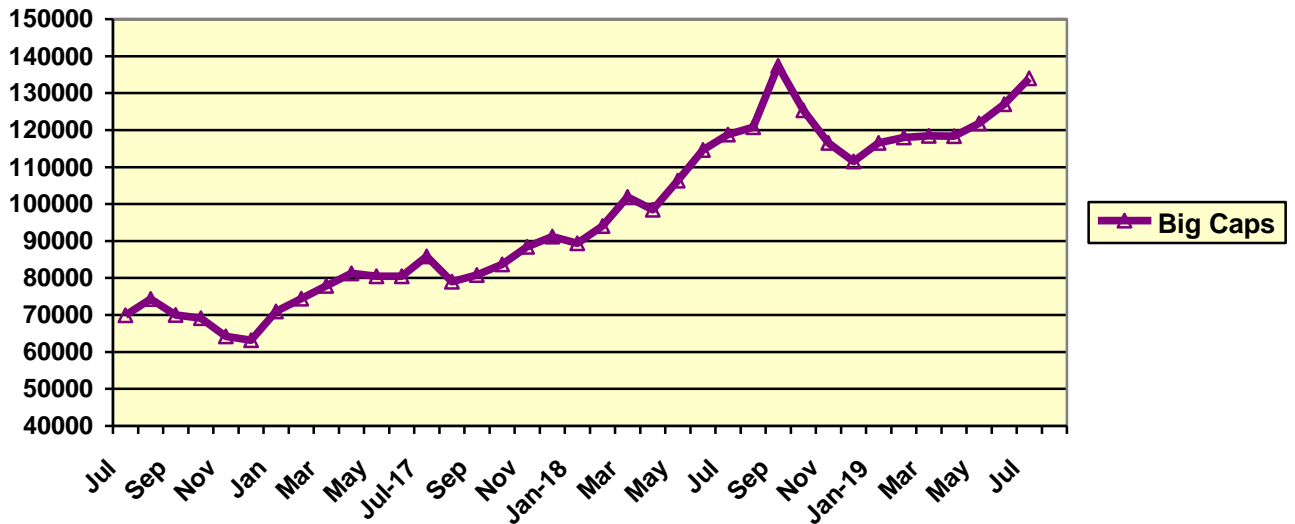
Amplia and Resonance will replace Airxanders and Reva in the Second 20.

* The BDI-40 is selected with the assistance of Lodge Partners analyst Marc Sinatra.

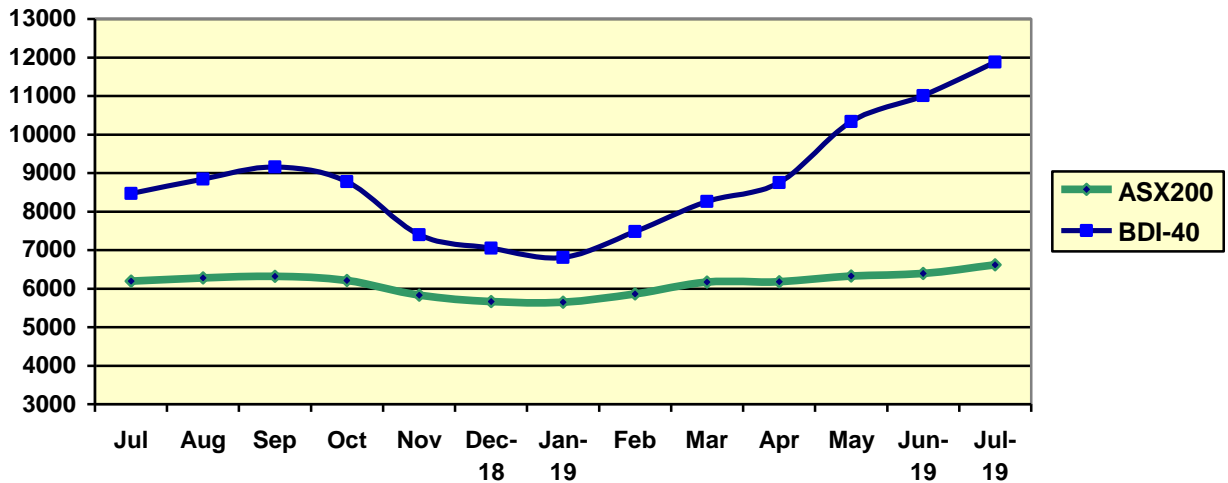
BDI-40 v ASX200 Jun 30, 2006 to Jun 30, 2019- Adjusted



Big Caps \$m (Cochlear, CSL, Resmed) Jun 30, 2016 – Jun 30, 2019



BDI-40 (\$m) v S&P ASX 200 – Jun 30, 2018 - Jun 30, 2019 (current, raw data)



PROBIOTEC

Probiotec says it will buy the Sydney-based pharmaceutical packaging company Australian Blister Sealing for up to \$28,000,000.

Probiotec said that Australian Blister Sealing was a pharmaceutical and consumer products contract packer which had the capacity to pack in foil, carded and clamshell blister, as well as bottle filling, labelling, and secondary packaging for pharmaceuticals, cosmetics and food industries.

The company said the acquisition would be settled for \$23,000,000 in cash with the vendor entitled to up to \$5,000,000 subject to unspecified first year earning hurdles. Probiotec said the total acquisition amount was four to five times the earnings before interest, tax, depreciation and amortization (Ebitda) amount, and was expected to provide around five cents of earnings per share accretion yearly, before allowing for any acquisition related amortization.

The company said the acquisition would be completed by March 31, 2020 and Australian Blister Sealing would continue at its current production facility where it had "significant" capacity for expansion.

Probiotec said it expected its Ebitda for the year to June 30, 2019 to be about \$9 million up 20 percent on the previous year.

The company said that it expected revenue for the year to June 30, 2020 to be more than \$100 million with Ebitda of about \$16 million to \$17 million.

Probiotec said it was advised by Pricewaterhousecoopers and Arnold Bloch Leibler.

Probiotec was up 10.5 cents or 6.7 percent to \$1.675.

AVITA MEDICAL

Avita says a 16-patient, open-label study of its Recell spray-on skin for diabetic foot ulcers reduced all wounds, with the average reduction 83 percent at week 26.

Avita said that the data from patients treated at the UK's Manchester Royal Infirmary, Kings College Hospital and Northwick Park Hospital was presented by Manchester's Dr Tawqeer Rashid at the Japanese Society of Limb Salvage and Podiatric Medicine meeting in Kobe, Japan, June 28 to 29, 2019.

"Chronic wounds, such as diabetic foot ulcers, significantly impact the lives of patients," Dr Rashid said. "There is a real need to find new ways of treatment and the Recell system shows promise in potentially enhancing the healing of diabetic foot ulcers, including recalcitrant ulcers that have not responded to standard-of-care therapies."

Avita said that study patients had chronic diabetic foot ulcers ranging in size from 5cm² to 33cm², with and without infection, and with varying depths, inclusive of bone and tendon exposure, that had failed to heal with standard-of-care treatments.

The company said the Recell system was used to prepare spray-on skin "using a small amount of each patient's own skin", that were then applied to the ulcers.

Avita said that all 16 patients had a reduction in ulcer size following Recell treatment with an average wound size reduction of 83 percent at week 26, eight patients' wounds healed "completely, with a median time to healing of 14 weeks, despite the ... severity of ulcers".

Avita chief executive officer Dr Michael Perry said the company was "pleased with the results of the diabetic foot ulcer feasibility study, which demonstrate the potential versatility of the Recell system as a meaningful treatment option to heal chronic wounds".

In 2016 Avita said that King's College and Northwick Park Hospitals had joined its UK safety and efficacy trial of Regenercell spray-on-skin for diabetic foot ulcers, with the first of 24 patients enrolled at Manchester Royal Infirmary (BD: May 31, Nov 9, 2016).

Avita was up two cents or 4.8 percent to 44 cents with 11.1 million shares traded.

[VOLPARA HEALTH TECHNOLOGIES](#)

Volpara says its one-for-27 retail rights issue at \$1.50 a share has raised \$4,352,871, with a further \$472,673 to be placed by the underwriter, taking the total raised to \$55 million. Volpara said it received acceptances and applications for shortfall shares for 2,901,914 shares and the underwriter Bell Potter Securities would place the 315,115 shares shortfall. In June, the company said it raised \$45 million in a placement and a further \$5.17 million in the institutional part of the rights issue (BD: Jun 5, 2019). Volpara was up one cent or 0.6 percent to \$1.695 with 592,470 shares traded.

[VISIONEERING TECHNOLOGIES](#)

Visioneering says its nine-for-19 rights issue at 4.5 cents a share has raised \$5.8 million taking the total raised to \$11.1 million. In June, Visioneering said it expected to raise \$11.1 million in a \$1 million placement to, and up to \$4.3 million convertible note with, Melbourne investors Tiga Trading and Thorney Technologies, and hold a \$5.8 million rights offer. Today, the company said that it had valid applications for 45,887,740 new Chess depository instruments (CDIs) raising \$2,064,948 and the shortfall would be issued to the underwriter and the sub-underwriter. Visioneering was untraded at 5.4 cents.

[EMVISION MEDICAL DEVICES](#)

Emvision says it has improved its non-invasive, low-cost, portable brain scanner and Brisbane's Princess Alexandra Hospital has been approved as a pilot trial site. Emvision said the trial would collect data from patients diagnosed with ischaemic and haemorrhagic stroke, with confirmatory computerized tomography (CT) and magnetic resonance imaging (MRI) scans. The company said improvements had been made to the brain scanner's antenna to prevent cross antenna interference which would increase the quality of the imaging. Emvision said that feedback from the Princess Alexandra Hospital's neurology, nursing, and critical care staff and radiologist confirmed the need for a small, portable brain imaging device to cater for patients in the narrow spaces common in the hospital ward. Emvision was up half a cent or 1.3 percent to 38 cents.

[BIOINTELECT](#)

Sydney's Biointelect says it will work with the Boston-based New Perspectives to expand its support for early-stage life science companies. Biointelect said it helped companies with commercialization, management, and regulatory pathways in the US and Europe. The company said New Perspective did similar work and also worked with later stage biotechnology companies. The company said the partnership would "expand and add significant depth [to the] combined service offer to Australian life sciences companies, many of which have the US as their primary market focus". Biointelect managing-director Jennifer Herz said the partnership with New Perspectives would offer biotechnology, medical technology and pharmaceuticals a "leading healthcare strategic planning firm". Biointelect is a private company.

SIENNA CANCER DIAGNOSTICS

Sienna says the US Patent and Trademark Office has granted a patent covering its in-vitro diagnostic test for the human telomerase reverse transcriptase (hTERT) protein.

Sienna said that the patent, titled 'Method of detecting cancer' would provide intellectual property protection until 2035.

The company said that its test used an antibody targeted against the human telomerase reverse transcriptase (hTERT) protein, a common biomarker in cancer cells.

Sienna said its test assisted in the early detection of bladder cancer.

The company said the patent included claims covering the performance of the test with a range of antibodies and antibody-derived detection agents.

Sienna was up 0.7 cents or 11.5 percent to 6.8 cents.

RESAPP HEALTH

Resapp says it has recruited 200 of the 250 patients needed for its doubled-blind, prospective, at-home, obstructive sleep apnoea study.

Last year, Resapp said its machine-learning algorithms showed 90 percent accuracy in identifying obstructive sleep apnoea from breathing and snoring sounds in a 582 patient, prospective, double-blind study (BD: Oct 11, 2018).

Today, the company said that by using a smartphone on a bedside table the device had an 84 percent sensitivity and 83 percent specificity.

Resapp said it expected to complete the recruitment and release top-line results by October, 2019.

Resapp fell one cent or 5.1 percent to 18.5 cents with 1.9 million shares traded.

HERAMED

Heramed says it has integrated its Herabeat and Heracare Pro software for foetal heart-rate monitoring into the Fortazela, Brazil-based Hapvida Saude hospitals.

Heramed said its foetal heart-rate monitoring device, Herabeat, and accompanying internet cloud-based pregnancy monitoring software, Heracare Pro, had been integrated into Hapvida's electronic medical record system.

The company said the combination of the products allowed for immediate data upload from Herabeat to Hapvida's records which enabled its medical team to "view analytics in real-time".

Heramed said that Herabeat and Heracare would be used in place of monitors which cost up-to \$US10,000 (\$A14,278) that did not provide an immediate data transfer.

The company said it estimated the cost of its foetal heart rate monitoring system at between US\$69 and US\$99 (\$A99 to \$A141) per users per month.

Heramed was up 2.5 cents or 13.2 percent to 21.5 cents.

AUSCANN

Auscann says opium poppy producer Tasmanian Alkaloids will supply it with high quality marijuana resin.

In 2017, Auscann said it had partnered with Tasmanian Alkaloids to cultivate, manufacture and distribute medicinal cannabis (BD: May 17, 2017).

Today, the company said it had agreed to purchase a minimum of 30 percent of its resin supply requirements from Tasmanian Alkaloids, which it described as Tasalk, for a minimum three-year period with the possibility to extend.

Auscann was up 2.5 cents or 7.5 percent to 36 cents with 1.8 million shares traded.

MEDIBIO

Medibio says the Chersey, Surrey-based Compass Group Plc will begin the first of two programs of testing its Illumen heart rhythm software for mental health screening.

Medibio said Illumen was a mobile telephone and internet web application for the early screening of symptoms of depression, anxiety and stress.

The company said that Compass was a UK food service company and would trial the software as part of its strategy to ensure the mental wellbeing and physical health of its employees.

Medibio was up 1.3 cents or 144.4 percent to 2.2 cents with 75.5 million shares traded.

GI DYNAMICS

GI Dynamics says Crystal Amber Funds will extend the maturity and final conversion date of its 2017 convertible note to October 1, 2019.

GI Dynamics said that Crystal Amber was its largest shareholder and recently extended the date from May 1 to July 1, 2019.

The new Maturity Date will be 1 October 2019.

GI Dynamics was up 0.1 cents or 3.45 percent to three cents.

ADMEDUS

Admedus has requested a fifth extension to its voluntary suspension to finalize its re-capitalization plan.

In April, Admedus requested a trading halt "pending an announcement regarding the ... immunotherapies sale transaction" and later requested a voluntary suspension for the sale of Admedus Vaccines, formerly Coridon (BD: Apr 15, 17, 2019).

On April 23, the company responded to an ASX aware query, announced the termination of the Vaccine business sale and requested an extension to the suspension "to finalize the ... recapitalization plan" (BD: Apr 23, 2019).

In May and June, Admedus requested further extensions (BD: May 7, 21, Jun 4, 2019).

Today, Admedus said it expected the suspension to last until August 5, 2019.

Admedus last traded at six cents.

ONCOSIL MEDICAL

Regal Funds Management says it has reduced its substantial shareholding in Oncosil from 59,238,620 shares (10.62%) to 41,906,317 shares (6.64%).

The Sydney-based Regal said it bought and sold shares between April 16 and June 26, 2019 with the single largest sale 45,022,660 shares for \$2,161,088 or 4.8 cents a share.

Regal said its shares were held by UBS Nominees and Merrill Lynch Australia Nominees.

Oncosil was up half a cent or 9.4 percent to 5.8 cents with 2.5 million shares traded.

RACE ONCOLOGY

Race director Dr William Garner says he has reduced his substantial shareholding from 12,981,741 shares (15.79%) to 11,634,166 shares (14.15%).

Dr Garner said in an Appendix 3Y director's interest notice that the shares were traded on June 25, 2019 in an off-market transfer by the director-related Update Pharma Inc to non-related shareholders of the director-related entity.

Race was up 0.3 cents or 5.7 percent to 5.6 cents.

BIOTECH DAILY TOP 40 WITH MARKET CAPITALIZATION AT JUNE 30, 2019

Company \$Am	Jul-18	Jun-19	Jul-19
Cochlear	11,519	11,353	11,915
CSL	87,141	92,240	97,511
Resmed	20,124	23,394	24,613
BDI-20			
Avita	88	803	785
Clinuvel	527	1,649	1,680
Compumedics	99	103	108
Cyclopharm	68	89	101
Cynata	130	128	127
Ellex	88	84	76
Genetic Signatures	38	114	140
Immutep	94	91	85
Medical Developments	343	334	347
Mesoblast	702	713	706
Nanosonics	946	1,293	1,683
Neuren	299	122	115
Opthea	106	161	167
Paradigm	80	279	269
Pharmaxis	99	104	101
Polynovo	352	793	1,018
Pro Medicus	829	2,431	2,601
Starpharma	432	485	518
Telix	129	230	271
Volpara	141	333	359
Second 20			
Actinogen	45	13	11
Alterity (Prana)	23	29	25
Amplia (Innate)	12	5	4
Antisense	9	22	19
Benitec	35	31	15
Dimerix	15	12	13
Impedimed	150	59	44
Imugene	83	61	58
Kazia	21	26	22
LBT Innovations	23	33	27
Oncosil	144	40	33
Optiscan	28	19	27
Orthocell	27	57	78
Osprey	51	47	33
Patrys	61	29	27
Prescient	23	17	15
Proteomics	16	23	28
Resonance	10	44	42
Universal Biosensors	41	35	39
Uscom	23	23	19

* Biotech Daily editor, David Langsam, owns shares in Acrux, Amplia, Benitec, 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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