



# Biotech Daily

Monday July 1, 2013

*Daily news on ASX-listed biotechnology companies*

- \* YTD: BDI-40 UP 8%, ASX200 UP 17%; BIG CAPS UP 45%  
- BDI-40 UP 117% IN 5 YEARS, BIG CAPS UP 142% IN 7 YEARS
- \* TODAY: ASX DOWN, BIOTECH UP: PATRYS UP 14%, PHOSPHAGENICS DOWN 19%
- \* KIM CARR MINISTER FOR INNOVATION, TANYA PLIBERSEK MEDICAL RESEARCH
- \* PHOSPHAGENICS SUSPENDS CEO DR ESRA OGRU OVER ACCOUNTS
- \* ISONEA RAISES \$13.5m FOR AIRSONEA LAUNCH
- \* AMPLIPHI RAISES \$7 MILLION
- \* BIOTRON DATA BACKS BIT255 FOR RESERVOIR CELL HIV
- \* ALLIED TAKES 50% OF CORIDON
- \* ANTEO WINS \$1.7m COMMERCIALISATION AUSTRALIA GRANT
- \* GENETIC TECHNOLOGIES RECORD BREVAGEN TESTS
- \* PHYLOGICA, JANSSEN EXPAND PHYLOMER COLLABORATION
- \* SIRTEX FOUNDER DR BRUCE GRAY SELLS \$7m MORE SHARES
- \* BT TAKES 5% OF ACRUX
- \* GI DYNAMICS REQUESTS CAPITAL RAISING TRADING HALT

## MARKET REPORT

The Australian stock market fell 1.92 percent on Monday July 1, 2013 with the S&P ASX 200 down 92.3 points to 4,710.3 points. Fourteen of the Biotech Daily Top 40 stocks were up, 10 fell, 10 traded unchanged and six were untraded. All three Big Caps fell.

Patrys was the best, up 0.3 cents or 13.6 percent to 2.5 cents, with 150,000 shares traded, followed by Bionomics up 13.2 percent to 38.5 cents. Phylogica climbed 11.8 percent; Benitec and Neuren were up more than seven percent; Prana was up 6.1 percent; Nanosonics and Universal Biosensors were up more than four percent; Allied Health and Osprey rose more than two percent; with Heartware and Psivida up more than one percent.

Phosphagenics led the falls, down 2.5 cents or 19.2 percent to 10.5 cents with 6.4 million shares traded. QRX fell 7.6 percent; Viralytics lost 6.1 percent; Anteo was down five percent; Acrux, Living Cell and Resmed shed more than two percent; with CSL, Genetic Technologies, Medical Developments and Prima down more than one percent.

## BIOTECH DAILY TOP 40 INDEX (BDI-40)

The S&P ASX200 was up 17.3 percent for the year to June 30, 2013 with the Biotech Daily Top-40 Index (BDI-40) up 7.7 percent for the 12 months.

The Big Caps were up 45.3 percent for the year to June 30, with CSL up 49.5 percent, Resmed up 65.8 percent and Cochlear falling 3.6 percent.

But for the five years to June 30 the BDI-40, which does not include the three Big Caps of Cochlear, CSL and Resmed, was up 117.6 percent compared to the ASX200 remaining 7.9 percent below its value on June 30, 2008 (see charts, below).

Over the seven years since the inception of the BDI-40 on June 30, 2006, the Biotech Daily index was up 96.5 percent and the ASX200 was down 5.3 percent.

The BDI-40 began falling earlier than the benchmark ASX200 prior to the global financial crisis.

The Big Caps were up 66.6 percent over five years and 141.5 percent over seven years.

INDEX	Jun 30, 2006	Jun 30, 2008	Jun 30, 2012	Jun 30, 2013
ASX200	5074	5215	4095	4803
BDI-40 (MCap\$)	3563	3217	6500	7000
Big Caps (MCap\$)	17,156	24,864	28,501	41,425

The best performer for the year was Allied Health up 271.4 percent to a market capitalization of \$52 million from \$14 million, followed by Neuren up 219.2 percent to \$83 million, Uscom (160.0%), Cellmid (128.6%), Prana (114.0%), Psivida (102.2%) and, from a far higher base, Sirtex put on \$336 million or 98.8 percent to \$676 million. Medical Developments and QRX were up more than 70 percent for the year.

The deepest fall for the year was Pharmaxis down 86.4 percent from a market capitalization on \$317 million to \$43 million, followed by Tissue Therapies (67.1%), Impedimed (61.4%) and Starpharma down 39.9 percent to \$233 million.

Outside the BDI-40, Invion posted a modest 1,480 percent increase from \$5 million to \$79 million, Oncosil was up 400 percent, Mayne Pharma (367.9% to \$248 million), Progen (300%), Novogen (237.5%), with Cryosite and Suda both up 100 percent. Bioxyne fell 83.3 percent to \$1 million and Conseгна was down 60 percent to \$6 million.

On the Nasdaq, Biota fell 17.1 percent for the year to a market capitalization of \$107 million, while Sunshine Heart climbed 192.0 percent to \$73 million.

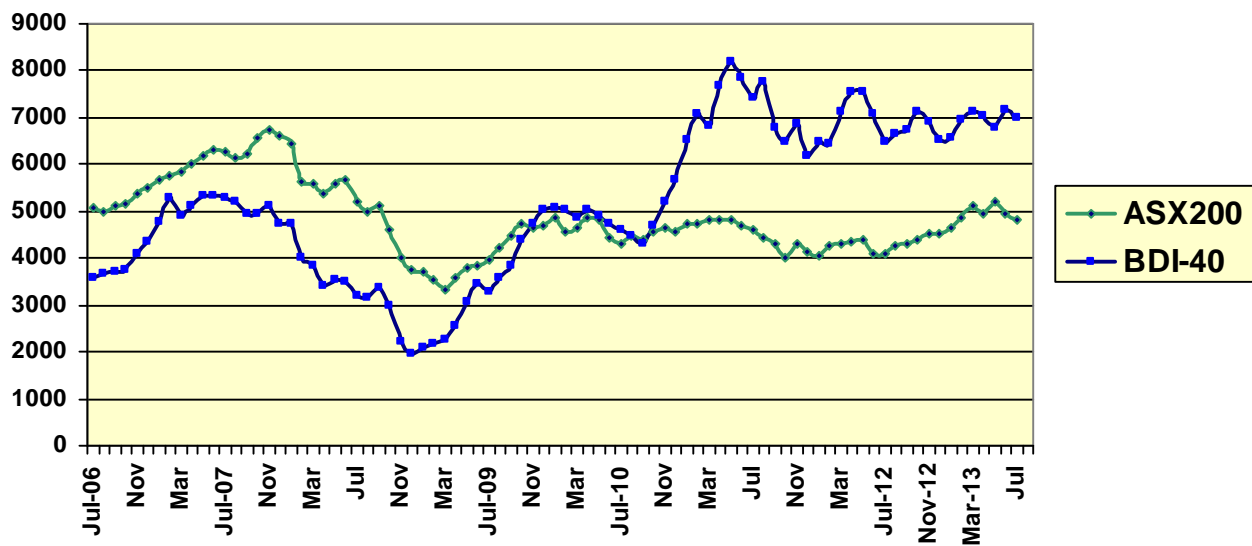
The month of June 2013 was less kind to all stocks, including biotechnology companies, with the BDI-40 slipping 2.5 percent, as did the ASX200.

Twelve BDI-40 companies were up, 22 fell and six were unchanged.

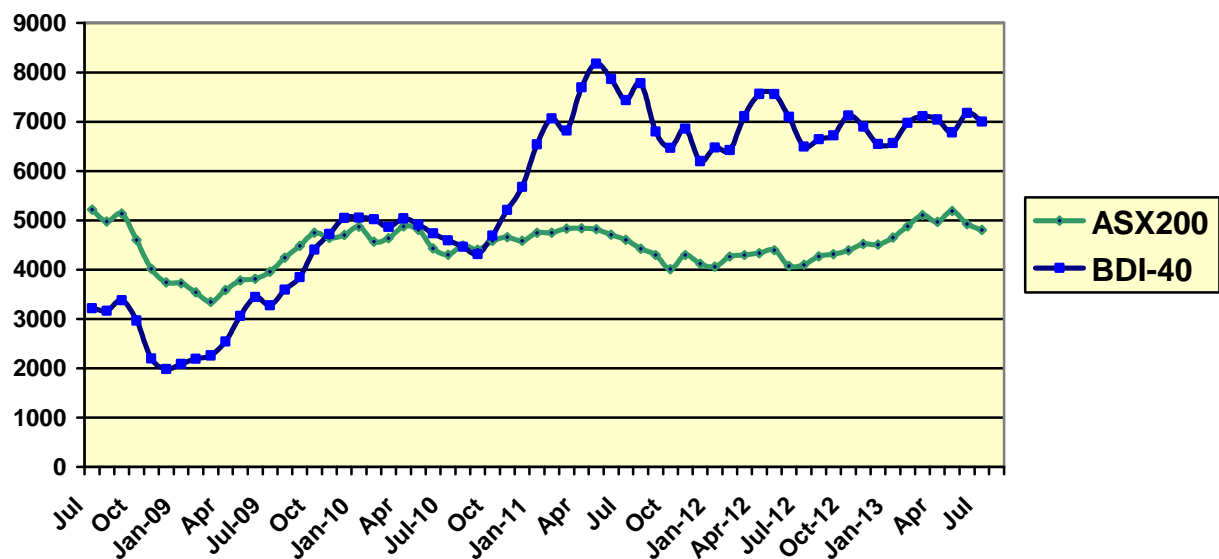
Compumedics was the best, recovering 57.1 percent to \$11 million, followed by Avita up 29.4 percent to \$44 million, Allied Health (26.8%), Neuren (22.1%), Impedimed (21.4%), Psivida (17.7%), Nanosonics (16.3%), Sirtex (12.7%) and Medical Developments (11.9%).

Circadian led the June falls, down 26.7 percent to \$11 million, followed by Pharmaxis (23.2%), Bionomics (20.4%), Genetic Technologies (14.0%), Mesoblast (12.9%), Viralytics (12.5%), Benitec (11.8%), QRX (11.4%), with both Alchemia and Cellmid down 11.1 percent.

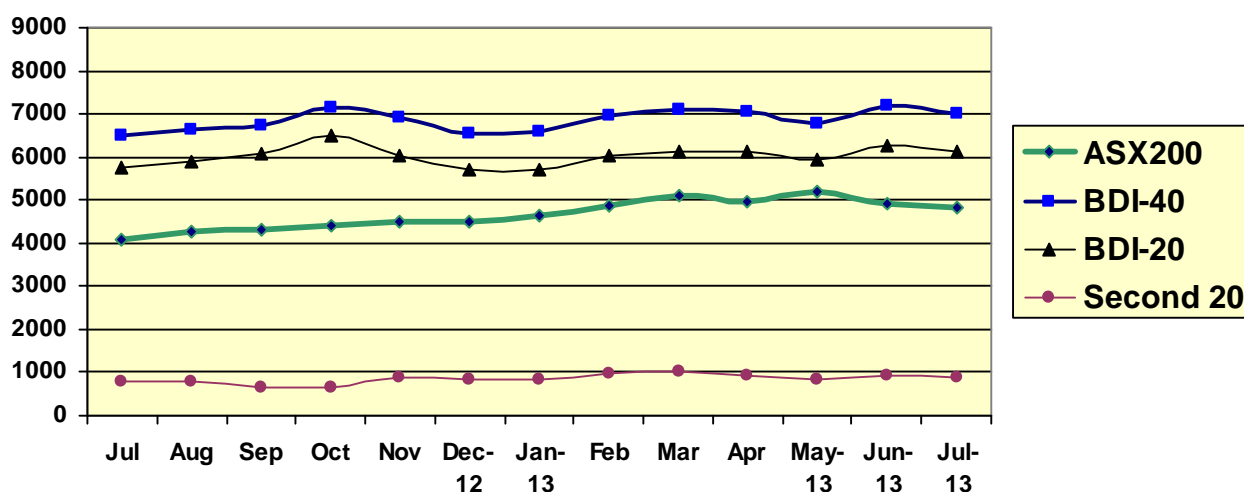
**7-YEAR DATA: BDI-40 v ASX200 Jun 30, 2006 to Jun 30, 2013**



**5-YEAR DATA: BDI-40 v ASX200 June 30, 2008 to June 30, 2013**



## 1-YEAR DATA: BDI-40 (\$m) v S&P ASX 200 – Jun 30, 2012- Jun 30, 2013



### FEDERAL GOVERNMENT

Prime Minister Kevin Rudd has appointed Senator Kim Carr as the Minister for Innovation, Industry, Science and Research and Minister for Higher Education.

Senator Carr returns to the post he held from December 3, 2007 until December 14, 2011, when he was replaced by Greg Combet.

Mr Combet resigned last week following the election of Prime Minister Rudd.

The new Ministry includes Health Minister Tanya Plibersek gaining the additional role of Minister for Medical Research, a move welcomed by Medicines Australia.

In a media release Senator Carr said that he welcomed the inclusion of higher education in the Innovation portfolio and said students were “our future researchers, entrepreneurs and workers in industry ... they are central to the Innovation agenda”.

“In a volatile global economy, the challenges for the portfolio remain acute,” Senator Carr said.

“Many sectors of industry have felt the impact of the high dollar, the cautious consumer and the new global trade settings,” Senator Carr said.

“This is not the time to yield,” Senator Carr said. “It is the time to renew our commitment to workers and their future and to building stronger management of our firms and modernizing our production processes.”

“Innovating better than we do now is the highest priority and most practical step we can take as a country to improve living standards, create jobs, and secure our future prosperity,” Senator Carr said. “For Labor, this is not a choice it is an imperative.”

Medicines Australia chief executive Dr Brendan Shaw said that the “addition of Medical Research to Ms Plibersek’s responsibilities is also particularly welcome and reflects her ongoing personal interest in this important area”.

“On the back of the McKeon Review of Health and Medical Research, the recognition of medical research at the Cabinet level is encouraging,” Dr Shaw said.

Dr Shaw said his organization was “encouraged” with the appointment of Senator Carr to Industry, Innovation, Science and Research.

“The industry worked well with Senator Carr in his previous stint as Industry Minister on issues like the Pharmaceutical Industry Strategy Group, patents, the Raising the Bar Bill, clinical trials and the [research and development ] tax credit,” Dr Shaw said.

“We congratulate him on his appointment and look forward to working with him again on building the future for the Australian medicines industry,” Dr Shaw said.

## PHOSPHAGENICS

Phosphagenics says it has suspended chief executive officer Dr Esra Ogru pending an investigation into “irregular transactions in relation to its invoicing and accounting records”. Phosphagenics said that it believed that the amounts involved may be material, but did not affect the current cash balance of \$14.1 million.

The company said it had “retained independent legal and accounting professionals to undertake a thorough and extensive investigation”.

Phosphagenics said that while Dr Ogru was suspended and the investigation concluded, executive director and joint chief executive officer Harry Rosen had returned from the New York office to assume the role of sole chief executive officer.

The company said that the clinical trial programs would continue as planned.

In 2010, Phosphagenics appointed Dr Ogru, the then chief operating officer, as joint chief executive officer with founder Mr Rosen.

Phosphagenics said at that time that Dr Ogru joined the company in 2001 as vice-president of research and development, was appointed as a director in 2005 and in January 2009 was appointed chief operating officer.

Phosphagenics fell 2.5 cents or 19.2 cents to 10.5 cents with 6.4 million shares traded.

## ISONEA

Isona says it has raised \$13,500,000 in a private placement to professional and sophisticated clients at 35 cents a share.

Isona said that the funds would be used to directly fund the manufacture, supply and marketing of the Airsona device due to be launched in Australia later this year and the US launch set for early 2014.

The company said that the placement to clients of Patersons Securities did not require shareholder approval.

Isona was up 5.5 cents or 15.3 percent to 41.5 cents with 1.2 million shares traded.

## AMPLIPHI BIOSCIENCES CORP

Ampliphi says it has raised \$7 million to develop bacteriophage-containing human therapeutics for use in the treatment of bacterial infections.

The Sydney and Richmond Virginia-based company said that the financing was led by RA Capital Management, and Third Security LLC, with Bioscience Managers Pty Ltd.

Ampliphi merged with Sydney’s Special Phage Services last year to develop treatments for bacterial infections (BD: Sep 10, 2012).

Ampliphi said it had issued about five million shares of Series B convertible preferred stock with each preferred share convertible into 10 shares of common stock.

Ampliphi said that Third Security managing director Julian Kirk would be appointed a director.

The company said that directors Dr Caroline Williams and Anthony Gellert had resigned.

Ampliphi said that Griffin Securities was the lead placement agent and Philip Capital was the co-placement agent for the transaction.

Ampliphi is a public unlisted company.

## BIOTRON

Biotron says that BIT225 targets HIV replication in monocyte cells in treated patients, resulting in significant reduction in virus levels within these reservoir precursor cells. Biotron said that research, entitled 'BIT225, a Novel Inhibitor of HIV-1 Release from HIV-1 Reservoirs of the Myeloid Lineage' co-authored by Biotron chief executive officer Dr Michelle Miller was presented at the International AIDS Society conference, in Kuala Lumpur, Malaysia

Biotron said that last year it completed a phase Ib/IIa trial of BIT225 in HIV-1 infected individuals at Bangkok's Siriraj Hospital, designed to demonstrate that BIT225 was able to target and reduce virus levels in monocyte lineage cells.

The company said that during HIV infection, those cells became infected with the virus and were the seeds of hidden HIV pools in patients, setting up long-lived macrophage reservoir cell populations in various sites in the body.

Biotron said that the data presented at the conference demonstrated that BIT225 targeted HIV replication in monocyte cells in treated patients, resulting in significant reduction in virus levels within these reservoir precursor cells.

The company said that targeting virus within monocyte lineage cells was central to preventing the ongoing cycle of infection and re-infection of T cells with virus from reservoirs in HIV-infected patients and the trial was the first demonstration of the feasibility of the approach.

Biotron said that virus levels in monocytes were assessed by measuring changes in the amount of virus produced by the trial participants' cells during 10 days of treatment with BIT225.

The company said the 21 patients in the trial were HIV-infected, with high levels of virus and good CD4+ T cell counts and none had previously received treatment with anti-retroviral drugs.

The company said that to measure changes in virus, monocytes were isolated from the participants' blood during their course of treatment with either BIT225 or placebo, and cultured in the laboratory for 25 days.

Biotron said that measurement of HIV in the cell cultures demonstrated that there was a reduction in virus production by monocyte cells collected during treatment with BIT225. The company said that the most pronounced antiviral effect was noted in trial participants with the highest viral loads and their cells "demonstrated a statistically significant and up to a three-fold reduction in virus".

Biotron said that the results suggested that BIT225 had the potential to be included in future HIV elimination or cure strategies and could provide a way to halt the ongoing cycle of infection and re-infection with virus from these long-lived cells.

The company said that targeting virus reservoirs was the holy grail of HIV research.

Biotron said that one source of long-lived virus resided in the brain of HIV-infected patients, contributing to AIDS-related dementia, with up to 24 percent of people infected with HIV in Western populations developing some degree of neurological impairment.

The company said that monocyte lineage cells, known as microglia cells, were implicated in the condition and data presented at the conference included the results of analyses of cerebrospinal fluid from two of the trial participants receiving BIT225.

Biotron said the analyses showed that BIT225 was able to cross the blood-brain barrier, indicating that it may be a potential therapeutic option for treatment of this condition.

Biotron was unchanged at 8.2 cents.



### ALLIED HEALTHCARE GROUP

Allied Health says it has increased its holding in Coridon, the vaccine development company led by Prof Ian Frazer from 44 percent to 50.1 percent.

Allied said that the increased holding followed the milestone of the start of clinical trials of herpes simplex virus 2 (HSV-2, known as genital herpes).

The company said that the vaccine was intended to prevent the spread of the virus and treat those infected.

Allied chief cooperating officer Dr Julian Chick said that "having a greater than 50 percent ownership "entitles Allied Healthcare Group to be eligible for a research and development tax rebate for the funds attributed to the vaccine programs".

Allied chief executive officer Lee Rodne said that Prof Frazer was also developing a next-generation vaccine for human papillomavirus (HPV) and associated cancers, which was "showing significant and positive progress".

"Both herpes and HPV are highly prevalent viral infections for which there is no therapeutic vaccine or cure available and as such represents a high global demand and clinical need for new novel vaccines and improved treatments," Mr Rodne said.

"We continue to see exceptionally strong results and the delivery of key milestones from Prof Frazer's work in this space and so we are driven to further invest and commercialize this high-potential technology," Mr Rodne said

Allied was up 0.1 cents or two percent to five cents with 3.5 million shares traded.

### ANTEO DIAGNOSTICS

Anteo says it has been awarded a \$1,696,431 Commercialisation Australia early stage commercialization grant for its Mix&Go surface chemistry adherents.

Anteo said Mix&Go has application in a range of diagnostic tests, but significant pre-adoption testing was mandatory by potential licencing partners before incorporating it into their commercial products.

Anteo chief executive officer Dr Geoff Cumming said the Commercialisation Australia grant was "an endorsement of our corporate strategy and [recognized] that the Government views it as an investment".

"In return we are expected to provide an ongoing source of employment for extremely talented, highly trained, individuals along with increasing our levels of export revenues," Dr Cumming said. "These are obligations we don't take lightly."

Anteo fell 0.3 cents or five percent to 5.7 cents with two million shares traded

### GENETIC TECHNOLOGIES

Genetic Technologies says that a record number of Brevagen test samples were received for the three months to June 30, 2013.

Genetic Technologies said that it received 599 patient samples in the three months to June 30, up 48 percent on the three months to March 31, 2013, "demonstrating a significant increasing trend in market traction".

The company said that for the year to June 30, 2103 it received 1,547 test samples and increase of 272 percent over the previous year.

Genetic Technologies said the growth in tests had increased progressively in each of the eight quarters since the launch and had been generated from a broad mix of US geographical sales territories, "demonstrating the growing acceptance of the test across the wider market".

Genetic Technologies fell 0.1 cents or 1.05 percent to 9.4 cents.

## PHYLOGICA

Phylogica says it has expanded its collaboration with Janssen Biotech for new classes of peptide drug conjugates from its Phylomer platform.

Phylogica has received an undisclosed payment for funding additional research associated with the expansion of the collaboration to discover, develop and commercialize the peptide drug conjugates.

The company said that the Janssen agreement began in December 2011 and the expansion followed the successful identification of Phylomers that specifically targeted the tissue-type of interest and internalized a payload within the cell.

Phylogica said that the screening phase was conducted using Phylogica's second-generation Phylomer libraries and new technology to detect Phylomer conjugates that not only penetrated cells but also delivered their payload functionally within the cell, known as 'endosomal escape'.

The company said the collaboration would explore further the ability of the Phylomer conjugates to function within the cell, which was expected to take about six months to complete and would further validate Phylogica's intracellular delivery capabilities.

Phylogica chief executive officer Dr Paul Watt said the company was "delighted to expand our collaboration on peptide drug conjugates with Janssen to include additional functional validation of intracellular delivery".

"Our Phylomer platform offers capabilities to discover unique cell-penetrating peptides and to detect only those peptide conjugates that are functionally active with the cell," Dr Watt said. "This core competence further differentiates Phylogica from its peers and is gaining increasing attention from the pharmaceutical industry."

Phylogica was up 0.2 cents or 11.8 percent to 1.9 cents.

## SIRTEX MEDICAL

Sirtex founder and former chief executive officer Dr Bruce Gray says he has further reduced his holding from 8,961,778 shares (16.07%) to 8,328,410 shares (14.93%).

Dr Gray said he sold 633,368 shares for \$7,313,848 or \$11.55 a share on June 28, 2013.

In December 2012, Dr Gray sold 708,477 shares for \$7,007,631 or an average price of \$9.89 a share (BD: Jan 20, 2013).

Sirtex fell 11 cents or 0.9 percent to \$11.87.

## ACRUX

BT Investment Management has become a substantial shareholder in Acrux with the acquisition of 8,531,574 shares (5.12%).

The Sydney-based BT said in the substantial shareholder notice said that the shares were held by a range of companies including Advance Asset Management, HSBC Custody nominees, Asgard Capital Management, Westpac Bank and several BT companies.

Acrux fell eight cents or 2.3 percent to \$3.43.

## GI DYNAMICS

GI Dynamics has requested a trading halt pending an announcement in relation to a capital raising.

Trading will resume on July 3, 2013 or on an earlier announcement.

GI Dynamics last traded at 59.5 cents.



## BIOTECH DAILY'S TOP 40 WITH MARKET CAPITALIZATION

<b>Company \$Am</b>	<b>Jul-12</b>	<b>Jun-13</b>	<b>Jul-13</b>
Cochlear	3,671	3,762	3,540
CSL	20,099	29,690	30,042
Resmed	4,731	7,984	7,843
<b>BDI-20</b>			
Acrux	704	623	589
Alchemia	126	117	104
Benitec	17	17	15
Bionomics	97	162	129
Clinuvel	50	75	72
Heartware	1,221	1,571	1,647
Impedimed	44	14	17
Mesoblast	1,704	1,971	1,716
Nanosonics	133	135	157
Neuren	26	68	83
Osprey	40	40	46
Pharmaxis	317	56	43
Prana	43	88	92
Prima	107	80	80
Psivida	46	79	93
Reva	205	189	186
Sirtex	340	600	676
Starpharma	388	244	233
Tissue Therapies	76	27	25
Universal Biosensors	89	120	118
<b>Second 20</b>			
Allied Health	14	41	52
Anteo	57	46	46
Antisense	23	14	14
Atcor	9	11	11
Avita	44	34	44
Cellmid	7	18	16
Circadian	17	15	11
Compumedics	10	7	11
Ellex	11	17	17
Genetic Technologies	58	50	43
GI Dynamics	260	184	171
Living Cell	19	16	15
Medical Dev	44	67	75
Optiscan	13	12	11
Patrys	7	13	11
Phosphagenics	148	138	133
Phylogica	20	9	8
QRX Pharma	87	176	156
Uscom	5	13	13
Viralytics	19	24	21

\* Biotech Daily editor, David Langsam, owns shares in Acrux, Alchemia, Allied Health, Biota, Mesoblast, Nanosonics, Neuren and non-biotechnology stocks. Through Australian Ethical Superannuation he has an indirect interest in Acrux, Alchemia, Atcor, Avita, Circadian, Cochlear, Ellex, Neuren, Pharmaxis, Prana, Sirtex and Universal Biosensors. These holdings are liable to change.

**Biotech Daily can be contacted at: PO Box 5000, Carlton, Victoria, Australia, 3053**  
**email: [editor@biotechdaily.com.au](mailto:editor@biotechdaily.com.au); [www.biotechdaily.com.au](http://www.biotechdaily.com.au); twitter: @biotech\_daily**