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to go to the

## The 10<sup>th</sup> Bioshares Biotech Summit

[www.bioshares.com.au/  
queenstown2014.htm](http://www.bioshares.com.au/queenstown2014.htm)

### Companies covered: Quarterly Review

	Bioshares Portfolio
Year 1 (May '01 - May '02)	21.2%
Year 2 (May '02 - May '03)	-9.4%
Year 3 (May '03 - May '04)	70.6%
Year 4 (May '04 - May '05)	-16.3%
Year 5 (May '05 - May '06)	77.8%
Year 6 (May '06 - May '07)	17.4%
Year 7 (May '07 - May '08)	-36%
Year 8 (May '08 - May '09)	-7.4%
Year 9 (May '09 - May '10)	50.2%
Year 10 (May '10 - May '11)	45.4%
Year 11 (May '11 - May '12)	-18.0%
Year 12 (May '12 - May '13)	3.1%
Year 13 (May '13 - May '14)	26.6%
Year 14 (May '14 - )	1.0%
<b>Cumulative Gain</b>	<b>355%</b>
<b>Av. Annual gain (14 yrs)</b>	<b>16.2%</b>

*Bioshares* is published by Blake Industry & Market Analysis Pty Ltd.

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Individual Subscriptions (48 issues/year)  
**\$400** (Inc. GST)  
Edition Number 558 (4 July 2014)  
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# Bioshares

4 July 2014  
Edition 558

*Delivering independent investment research to investors on Australian biotech, pharma and healthcare companies.*

### Quarterly Review

#### June Quarter Slump for the Bioshares Index

A combination of a negative regulatory ruling for QRxPharma, clinical trial failure (reported at the very end of previous quarter) for Prana Biotech, a new but unsatisfying level of detail on partnership entitlements for Universal Biosensors, continued market flux for Acrux's testosterone product Axiron in the USA, and continued weakness in Mesoblast's share price were some of the factors that pushed the **Bioshares Index** into a 15.2% fall in the June quarter 2014.

This local weakness stood in considerable contrast to the **Nasdaq Biotech Index**, which posted another strong quarter of growth, of 8.8%. The **Bioshares Large Cap Index** stayed flat for the quarter, pipped marginally by the **ASX 300 Index**, which increased by 0.5% over the June quarter.

Stocks which made strong gains included Genera Biosystems (+183%), boosted by the company's announcement of an intent to merge with another company; Bioxyne, which surged 138%, and OBJ (+61%), on the back of news of its signing a multi-product development deal with GlaxoSmithKline. LBT Innovations also had a strong quarter (+56%), as the company delivered on a milestone related to its Automated Plate Assessment System. What was noteworthy about the Top 10 performers in the June quarter was that they were almost exclusively medical device companies.

#### Capital Raisings

In contrast to downward pressures on a suite of stocks, the ability of the ASX-listed life science stocks to raise funds remained solid, with \$93 million raised during the quarter. This was 5% less than the \$98 million raised in the previous quarter.

The capital raisings were led by GI Dynamics, which raised \$34.3 million, part two of Benitec Biopharma's (\$15.75 of \$31 million) placement, and Admedus' \$8.3 million placement and \$10.2 million SPP. The Admedus SPP was scaled back from \$11.8 million.

Also included in the quarter's capital inflows was \$3 million raised by Adelaide-based Reproductive Health Sciences, which made a back door listing through AO Energy. This company is developing kits for use in IVF clinics to improve egg selection.

Looking ahead, two IPO's are underway, with Orthocell seeking to raise \$6-\$8 million and Dimerix Bioscience seeking to raise \$7-\$9 million. Australia's low number of IPOs stands

*Cont'd over*

#### Index Performance by Quarter

	Q2 2013	Q3 2014	Q4 2013	Q1 2014	Q2 2014
Bioshares Index	-3.0%	17.4%	1.6%	0.5%	-15.2%
Nasdaq Biotech Index	8.6%	20.7%	8.3%	4.2%	8.8%
Bioshares Large Cap Index	4.4%	4.3%	4.4%	-1.8%	0.0%
ASX 300 Index	-3.6%	8.7%	2.5%	0.2%	0.5%

## Top Ten Movers - June Q 2014

Company	Code	Cap. \$m	Change - Quarter	Price 30/06/14
Genera Biosystems	GBI	31	183%	\$0.340
Bioxyne	BXN	3.8	138%	\$0.019
OBJ	OBJ	121	61%	\$0.082
LBT Innovations	LBT	14	56%	\$0.140
Analytica	ALT	35	54%	\$0.043
Advanced Surgical Design & Manufacture	AMT	3	33%	\$0.060
Compumedics	CMP	24	32%	\$0.145
Isonea	ISN	62	18%	\$0.235
Resmed Inc.	RMD	7,688	15%	\$5.48
Medigard	MGZ	2	15%	\$0.023

## Top Ten Decliners - June Q 2014

Company	Code	Cap. \$m	Change - Quarter	Price 30/06/14
Immuron	IMC	15	-38%	\$0.005
Medical Australia	MLA	17	-39%	\$0.165
Acrux	ACR	175	-39%	\$1.050
Antisense Therapeutics	ANP	20	-39%	\$0.140
Universal Biosensors	UBI	35	-41%	\$0.200
Optiscan Imaging	OIL	5	-42%	\$0.029
Phylogica	PYC	7	-52%	\$0.012
Actinogen	ACW	2.2	-76%	\$0.011
Prana Biotechnology	PBT	108	-79%	\$0.220
QRxPharma	QRX	13	-90%	\$0.080

– Tables for the Top 10 Movers and Decliners for FY2014 can be found on page 11

in stark contrast to the US, where 51 IPOs occurred in the first half of 2014 (34 in the March quarter and 17 in the June quarter).

## Highlights for the Quarter

Highlights for the quarter included Bionomic's signing of an impressive early stage deal with Merck covering its CNS drug candidate BNC375 (and backup compounds), Benitec Biopharma dosing its first patient in its HCV trial with its RNAi construct and

Impedimed commencing its key post-approval trial of its L-Dex device in 1,100 patients, seven years after it was first suggested in the company's IPO prospectus.

Also noteworthy, but off the main stage, was acquisition of the privately held Fibrotech by Shire Pharmaceuticals for US\$75 million upfront plus milestones.

Bioshares



**CoSA**  
Life Science Specialists  
Company Secretarial and CFO Services

## ABOUT CoSA

CoSA was established in 2000 by Bryan Dulhunty to provide outsourced compliance and financial services to small and mid-tier listed and non listed life science companies.

## THE CoSA DIFFERENCE

It is the personal commitment of founder Bryan Dulhunty that sets CoSA apart from other service providers. As a former executive chairman of an ASX-listed life science entity, Bryan understands the many disciplines effecting small to mid-tier life science companies. While CoSA's primary focus is compliance and financial management, we have extensive experience in, and contacts in marketing, investor relations and funding.

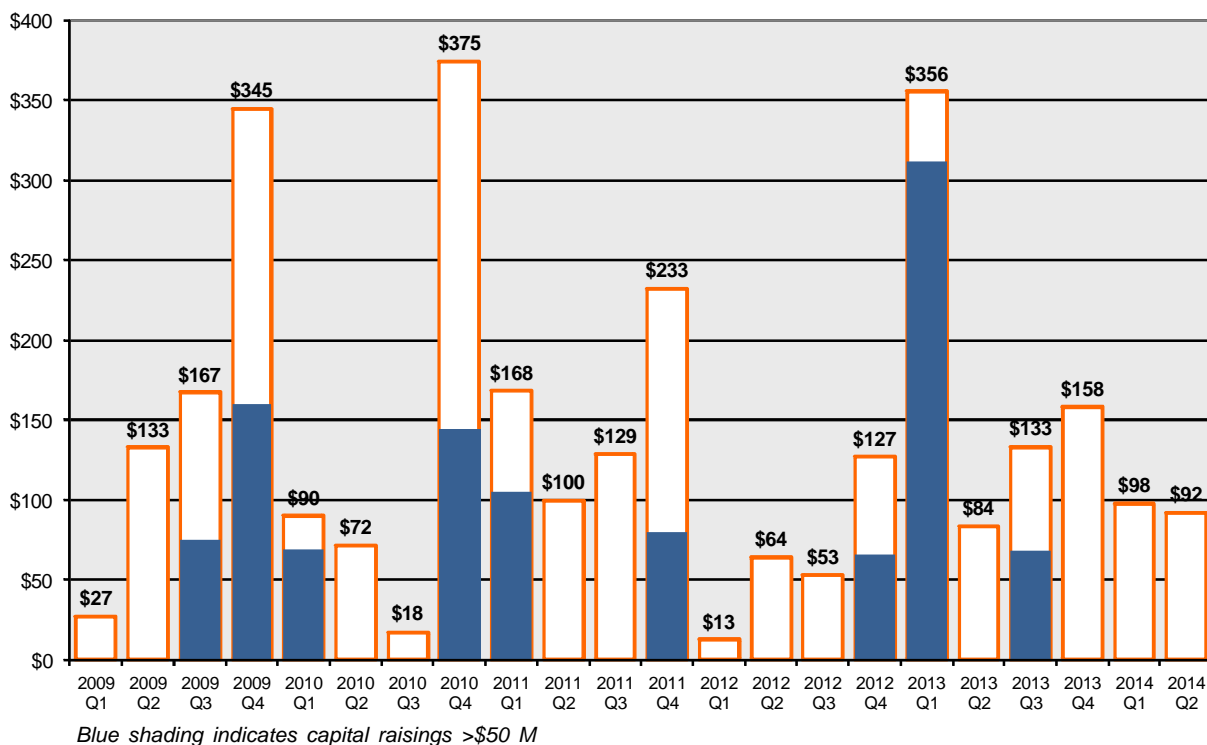
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**Capital Raisings by Australian-listed Biotech Companies Q2 2014**

Company	Investment Manager or Investor	Type of Raising	Funds Raised (\$M)
GI Dynamics	Bell Potter	Placement	\$34.3
Benitec Biopharma	RA Capital, Perceptive Advisors, Special Situations Funds, Sabby Management	Placement - Stage II (of \$31 M)	\$15.75
Admedus		SPP	\$10.20
Admedus		Placement	\$8.30
Clinuvel Pharmaceuticals		Placement	\$6.90
Simavita		Placement	\$3.10
Virax Holdings		Placement	\$3.00
Impedimed	Canaccord Genuity	SPP	\$2.35
LBT Innovations	Bell Potter	Placement	\$1.50
Uscom		Placement	\$1.40
Analytica	Paterson's Securities	Rights Issue	\$1.20
Resonance Health	Azure Capital	Rights Issue	\$0.78
Resonance Health	Azure Capital	Placement	\$0.50
Genera Biosystems		Placement	\$0.50
Genera Biosystems		Convertible Notes	\$0.35
Bluechiip		Placement	\$0.12
	Backdoor Listing (Reproductive Health Sciences)		\$3.00
<b>Total raised in Q2 2014</b>			<b>\$93.2</b>
<b>Total raised in Q1 2014</b>			<b>\$98.0</b>
<b>Total - 2014 (CY to date)</b>			<b>\$191.2</b>

**Capital Raised by ASX Listed Life Science Companies 2009 Q1 - 2014 Q2 (\$M)**



# 10 Bioshares 2014 Biotech Summit

## ***The Essential Australian Biotech Investment Event***

Access the full program at:

[www.bioshares.com.au/queentown2014.htm](http://www.bioshares.com.au/queentown2014.htm)

## Current Speakers & Panellists

Paul Anderson – CEO Orthocell  
 Bob Atwill – CEO Cytomatrix  
 David Blake – Editor, Bioshares  
 Matt Callahan – Director, Orthocell  
 Rick Carreon – CEO Impedimed  
 Bob Crane – CFO GI Dynamics  
 John Cullity – Torrey Insights  
 Jackie Fairley – CEO Starpharma  
 David Fisher – Executive Director, GI Therapies  
 Neil Frazer – CEO Oncosil Medical  
 Peter French – CEO Benitec Biopharma  
 Michael Johnson – CEO Rhinomed  
 Michael Kavanagh – CEO Nanosonics  
 Philippa Lewis – CEO Simavita  
 Ross Mangelsdorf – Director, Analytica  
 John Martin – Executive Chairman, Regeneus  
 Malcolm McColl – CEO Viralytics  
 Ross McDonald – CEO Cynata Therapeutics  
 Amos Melzer – CEO Immuron  
 Chris Nave – Managing Director, Brandon Capital Partners  
 Matthijs Smith – Analyst, Cannacord Genuity  
 Alan Taylor – Executive Chairman, Clarity Pharmaceuticals  
 Brad Walsh – CEO Minomic International  
 Simon Wilkinson – CEO Innate Immunotherapeutics  
 Anton Uvarov – Forrest Capital

### SPONSORS



### NETWORK PARTNER



## Bioshares Model Portfolio (4 July 2014)

Company	Price (current)	Price added to portfolio	Date added
pSivida	\$4.400	\$4.500	May 14
Invion	\$0.073	\$0.089	February 14
Impedimed	\$0.205	\$0.245	December 13
Analytica	\$0.041	\$0.025	December 13
Imugene	\$0.013	\$0.022	November 13
Oncosil Medical	\$0.097	\$0.155	September 13
IDT Australia	\$0.250	\$0.260	August 13
Viralytics	\$0.275	\$0.300	August 13
Tissue Therapies	\$0.285	\$0.255	March 2013
Somnomed	\$1.58	\$0.94	January 2011
Cogstate	\$0.280	\$0.13	November 2007

## Portfolio Changes – 4 July 2014

## IN:

No changes

## OUT:

No changes

Recommendations:

## Selected Clinical Trial Developments - Q2 2014

Company	Code	Product/Therapeutic	Event
Alchemia	ACL	HA-Irinotecan	Expects to announce top-line results before the end of Q3 2014 from 415 pt, Phase III trial in metastatic colorectal cancer pts
Alchemia	ACL	HA-Irinotecan (in combination with erbitux)	Commenced enrolment in investigator-led 50 pt Phase II trial
Avita Medical	AVH	ReCell (spray-on-skin) (hypopigmented burn scar)	Announced results from investigator-led 18 pt, randomized study; results showed ReCell to be clinically superior to medical needling
Benitec Biopharma	BLT	TT-035 (HCV)	Commenced dosing in Phase I/II trial in HCV subjects n(14 pts, open label, Genotype 1)
Biotron	BIT	BIT225(HCV)	Phase II trial, 60pt trial, (BIT225-008), 12 weeks, randomised. Added three additional sites in Thailand
Calzada	CZD	Novosorb BTM (burns therapy)	Treated first pt with 75% burns to body, with full thickness burns affecting 45%.
Clinuvel Pharm.	CUV	Scenesse(afamelanotide 16mg implant)	Commenced recruitment in 60 pt Phase II vitiligo trial in Singapore; combination treatment with narrow band ultraviolet phototherapy
Impedimed	IPD	L-Dex (early detection of lymphoedema)	Commenced post-approval trial in 1,100 pts
Innate Immunotherap.	ILL	MIS416	Phase IIb 90 pt trial suffered 8 week delay; trial now expected to commence enrolment in August
Mesoblast	MSB	Allogeneic MPCs (with LVADS)	Reported investigator-led study of MPCs used adjunctively with LVADS. Showed that 50% of treated pts tolerated weaning at 90 days; cf 20% of control.
Neuren Pharmaceuticals	NEU	NNZ-2566 (Rett Syndrome)	Completed enrollment in Phase II trial
Osprey Medical	OSP	AVERT (dye reduction system)	"On track with 18 hospitals approved to enroll patients"; (of 24 trial sites)
Patrys	PAB	PAT-SM6 (Multiple myeloma)	Announced result of 1 pt treated with PAT-SM6 in combination with other marketed drugs (4 drugs) and an autologous stem cell transplant
Pharmaust	PAA	Monepantel (MPL)	Commenced Phase I/II trial in 9 pts; 28 day dosing study
Progen Pharmaceuticals	PGL	PG545	Completed dosing first cohort (3 pts) in Phase I, IV trial in 25 pts with advanced solid tumours
Starpharma	SPL	DEP docetaxel	Phase I trial, enrollment of 25-30 pts continuing; three sites now have ethics approval; no evidence of neutropenia
Starpharma	SPL	Vivagel (prevention of recurrent BV)	Two Phase III trial (each ~600 pts); first ethics approval obtained; nearing commencement
Viralytics	VLA	CAVATAK (oncolytic immunotherapy) (melanoma)	Reported further interim data from single arm Phase II trial; 19 of 51 (37%) evaluable patients demonstrated (irPFS) 1 at six months after first dose

## The Australian Listed Life Sciences Sector

June 30, 2014 : Capitalisation \$51.9 billion, 95 companies

### Bioshares Large Cap. Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/14
CSL	CSL	31,667	Manufactures pharmaceutical products including vaccines and human plasma fractions	-5%	8%	\$66.55
Resmed Inc.	RMD	7,688	Manufactures diagnostic and treatment equipment for sleeping disordered breathing	15%	10%	\$5.48
Cochlear	COH	3,521	Manufactures cochlear hearing implants	8%	0%	\$61.70
Sigma Pharmaceuticals	SIP	812	Pharmaceutical manufacturing and wholesaling	10%	-7%	\$0.73

**Capitalisation Total** 43,688

### Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/14
Mesoblast	MSB	1,438	Developing therapies based on mesenchymal pre-cursor stem cells, with applications in cartilage regrowth and heart and bone repair. Acquired assets from Osiris Therap.	-18%	-16%	\$4.470
Sirtex Medical	SRX	947	The company's core technology uses radioactive particles to irradiate tumours in the liver. Approved for use in most major regions.	9%	41%	\$16.880
Mayne Pharma Group	MYX	499	Manufactures, develops and markets generic drugs, with operations in Australia and the USA	-11%	98%	\$0.850
Blackmores	BKL	465	Manufactures vitamin, mineral and herbal supplements and skin & hair products in Australia and N.Z.	5%	1%	\$27.200
Unilife Corporation	UNS	310	Developer of retractable syringes	-33%	-12%	\$0.500
API	API	288	Pharmaceutical wholesaler	4%	33%	\$0.590
GI Dynamics	GID	271	Commercialising the Endobarrier, an implantable polymer liner for the management of obesity and diabetes	2%	-3%	\$0.580
Bionomics	BNO	230	Developing drugs to treat cancer and CNS diseases, and has also developed a gene diagnostic for epilepsy.	4%	62%	\$0.550
Nanosonics	NAN	210	Developing a novel disinfection technology, the first product is a point of care ultrasound probe disinfection unit	-8%	31%	\$0.795
Admedus	AHZ	195	Diversified medical products group. Investor in Coridon, a vaccine technology company.	-4%	176%	\$0.135
Alchemia	ACL	178	Biopharmaceutical company with a revenue generating product, generic fondaparinux. Lead product HA-Irinotecan in a pivotal Phase III trial for colorectal cancer.	4%	72%	\$0.550
Acrux	ACR	175	Developer of the transdermal drug products Axiron, Evamist/Ellavie and Recuvyra	-39%	-70%	\$1.050
Starpharma Holdings	SPL	165	Developer of pharmaceutical applications of chemical scaffolds known as 'dendrimers'	-24%	-29%	\$0.580

## Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/14
Anteo Diagnostics	ADO	158	Developer of a biological coatings technology that can be applied to immunoassays, bio-separations, drug delivery and other medical devices	-22%	217%	\$0.190
Benitec Biopharma	BLT	134	R&D company focusing on gene silencing, specifically DNA delivered RNAi technology	-28%	234%	\$1.170
Neuren Pharmaceuticals	NEU	128	Developing neuroprotective therapeutics	-6%	22%	\$0.083
pSiVida	PVA	124	Developing drug delivery technologies, with a special focus on ophthalmic applications	-2%	6%	\$4.230
OBJ	OBJ	121	Developing transdermal drug delivery technologies	61%	720%	\$0.082
Prana Biotechnology	PBT	108	Developing drugs to treat CNS diseases such as Alzheimer's and Parkinson's	-79%	-10%	\$0.220
Phosphagenics	POH	89	Commercialising a platform technology (alpha-tocopherol) that improves the delivery of pharmaceutical and other products across the skin	-7%	-33%	\$0.087
Vita Life Sciences	VSC	88	Development, manufacture and distribution of prescription and OTC medicines as well as complementary and alternative medicines, dietary supplements and health foods	-13%	53%	\$1.550
Medical Developments	MVP	75	Commercialising the Pentrox inhaler for temporary pain relief. Used widely in ambulances across Australia.	-6%	4%	\$1.320
Tissue Therapies	TIS	74	Developing the VitroGro product for ulcer and wound healing	-20%	143%	\$0.280
Clinuvel Pharmaceuticals	CUV	72	Developing an analogue of the alpha-MSH protein, named Scenesse, as a photo-protective agent	7%	-6%	\$1.700
Regeneus	RGS	72	Commercialisation of autologous adipose derived stem cells and factors. Markets HiQCell for human use and CryoShot for veterinary use.	-11%	0%	\$0.390
Osprey Medical	OSP	69	Developing the AVERT system to limit the incidence of contrast induced nephropathy	-7%	14%	\$0.560
Clovercorp	CLV	68	Development and production of omega-3 food additives from tuna oil	-7%	-29%	\$0.410
Somnomed	SOM	65	Markets oral devices for the treatment of sleep apnea and snoring.	-6%	60%	\$1.460
Isona	ISN	62	Respiratory and pulmonary devices company. Recently launched Airsona, an ehealth product.	18%	-35%	\$0.235
Dorsavi	DVL	56	Commercialising a wireless sensor movement monitoring system and products for use in the Elite Sports, OH&S and medical/physiotherapy markets	-15%		\$0.460
Viralytics	VLA	52	Developing a cancer treatment based on the application of viruses (oncolytic virus technology)	-10%	16%	\$0.285

## Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/14
SDI	SDI	51	Manufacture & distribution of amalgam (fillings) & other dental materials and product R&D	-24%	-16%	\$0.430
Prima Biomed	PRR	49	Developing the CVac immunotherapy.	0%	-41%	\$0.040
Reva Medical	RVA	47	Developing a bioresorbable coronary stent	-7%	-75%	\$0.140
SUDA	SUD	46	Developing the anti-malarial product ArTiMist. Acquired drug delivery technology and suite of products in development from Novodel	-19%	100%	\$0.050
Progen Pharmaceuticals	PGL	44	A developer of cancer therapeutics, including PI-88 and PG545	-28%	256%	\$0.800
Impedimed	IPD	44	Markets products that aid the diagnosis of secondary lymphoedema, muscle wasting and other disorders	-18%	106%	\$0.185
Calzada	CZD	44	Holds a 100 % stake in PolyNovo, a polymer chemistry company.	-19%	50%	\$0.105
Ellex Medical Lasers	ELX	40	Develops, manufactures and markets solid state ophthalmic lasers used to treat secondary cataracts and retinal disorders.	12%	88%	\$0.375
Invion	IVX	38	Evaluating Xtoll biologic for lupus and developing the drugs Nadalol and Zafirlukast for respiratory conditions	-7%	119%	\$0.070
Oncosil Medical	OSL	36	Developing Oncosil, a brachytherapy for pancreatic cancer.	-23%	133%	\$0.100
Universal Biosensors	UBI	35	Development, manufacture and commercialisation of a range of in vitro diagnostic tests for point-of-care use	-41%	-70%	\$0.200
Analytica	ALT	35	A medical devices company developing the Pericoach product to aid in the management of female urinary incontinence	54%	115%	\$0.043
Avita Medical	AVH	33	Markets ReCell, a skin repair product	-17%	-23%	\$0.100
Genera Biosystems	GBI	31	Develops, manufactures and distributes advanced molecular diagnostic tests, with a particular focus on women's health.	183%	224%	\$0.340
Simavita	SVA	30	Commercialising an instrumented incontinence assessment device	12%	0%	\$0.460
Innate Immuno-therapeutics	IIL	28	Developing MIS416 to treat secondary progressive multiple sclerosis	-34%		\$0.165
Cogstate	CGS	28	Markets cognitive performance diagnostic products	-7%	-22%	\$0.280
Brain Resource Corp	BRC	26	Development and commercialisation of functional brain analysis techniques	2%	-6%	\$0.255



## Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/14
Novogen	NRT	24	Acquired Triaxial Pharmaceuticals in 2012. Now developing 'super' benzopyrans for the treatment of cancer.	-19%	-26%	\$0.145
Compumedics	CMP	24	Develops, manufactures and markets sleep diagnostic and monitoring equipment.	32%	164%	\$0.145
Genetic Technologies	GTG	24	Provides DNA paternity testing services and holds broad patents relating to the use of non-coding DNA.	-32%	-62%	\$0.036
Probiotec	PBP	22	Manufacturer, marketer and distributor of a range of over the counter (OTC) pharmaceuticals, complementary medicines and speciality ingredients	-34%	48%	\$0.415
Patrys	PAB	21	Developing human antibody therapies for the treatment of lung, pancreatic, gastric and colon cancers	-30%	36%	\$0.030
Cellmid	CDY	21	Developing therapies that target the midkine protein. Recently launched a range of hair loss products.	0%	17%	\$0.028
Pharmaxis	PXS	20	Markets the lung function test, Aridol. Bronchitol is approved in Europe for the management of cystic fibrosis	-31%	-53%	\$0.066
Antisense Therapeutics	ANP	20	Developing antisense compounds to treat multiple sclerosis and acromegaly	-39%	40%	\$0.140
Living Cell Technologies	LCT	18	Developing cell therapies for diabetes, Parkinson's disease and Huntington's disease	-36%	24%	\$0.051
Cynata Therapeutics	CYP	18	Stell cell technology company aiming to produce unlimited uniform, pharmaceutical grade MSCs from a single donor.	-2%	0%	\$0.400
USCOM	UCM	18	Marketing the Uscom non-invasive heart output function monitor and the BP+ non-invasive central blood pressure product	-27%	29%	\$0.220
Asian American Medical Group	AJJ	18	Manages liver treatment centres in Asia	0%	-32%	\$0.085
ITL	ITD	17	Develops and distributes medical devices such as safety equipment to prevent needle stick injuries and sterile preparation kits.	-16%	-25%	\$0.210
Medical Australia	MLA	17	Manufacture and supply of medical devices and equipment. Has acquired Medivet, an animal stem cell company	-39%	-8%	\$0.165
Cryosite	CTE	17	Provides specialised storage services, especially for umbilical cord blood	-27%	-16%	\$0.360
PharmAust	PAA	16	Manages Epichem, a drug discovery business. Also developing an veterinary anti-parasitic compound (PPL-1) as a human and animal cancer therapy	-15%	38%	\$0.011
Biotron	BIT	16	Developing compounds to treat HCV and HIV	0%	28%	\$0.105
IDT Australia	IDT	15	Manufacturer of pharmaceutical ingredients to international standards for major pharmaceutical groups.	-33%	0%	\$0.200

## Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/14
Resonance Health	RHT	15	Marketing the FerriScan technology, a non-invasive tool for measuring liver iron levels	-34%	300%	\$0.040
Immuron	IMC	15	Sales and development of hyper-immune bovine colostrum products for therapeutic use	-38%	25%	\$0.005
Atcor Medical	ACG	15	Markets the SphygmoCor device, a noninvasive technology that provides information regarding the functioning of the cardiovascular system	-22%	34%	\$0.094
LBT Innovations	LBT	14	Developer of innovative products which deliver productivity benefits across a range of life science settings	56%	47%	\$0.140
QRxPharma	QRX	13	Developing a 'dual opioid' drug (MoxDuo) to treat moderate to severe pain	-90%	-92%	\$0.080
Avexa	AVX	13	Developing an HIV drug, apricitabine. Has invested in a US coal company.	-30%	0%	\$0.014
Cyclopharm	CYC	12	A nuclear medicine company that markets the Technegas lung imaging system	0%	20%	\$0.210
Scigen	SIE	11	Developer and manufacturer of biopharmaceuticals. Company is based in Singapore and was spun out of Sonic Healthcare in 2002.	-20%	0%	\$0.020
NuSep Holdings	NSP	10	Manufacture and sale of protein separations technologies	2%	22%	\$0.061
Reproductive Health Sc.	RHS	10	Markets the pre-implantation IVF screening kit, 'embryo select'	2%		\$0.205
Circadian Technologies	CIR	9	Developing drugs, including antibodies, around the VEGF C and VEGF D targets	-16%	-19%	\$0.190
Rhinomed	RNO	9	Developing nasal technologies with applications for sport performance, sleep and drug delivery	-30%	-12%	\$0.023
Holista Colltech	HCT	8	Extracts collagen from sheepskins and markets natural healthcare products.	-19%	0%	\$0.060
Imugene	IMU	8	Developing a Her2 positive cancer vaccine technology, obtained through the acquisition of Biolife, also developing a buccal drug delivery technology	-7%	225%	\$0.013
Phylogica	PYC	7	Developing peptide compound libraries for use in human therapeutics	-52%	-29%	\$0.012
Bluechiip	BCT	5	Development, manufacture and commercialisation of a tracking system for biological samples	-32%	-75%	\$0.041
Optiscan Imaging	OIL	5	Manufactures confocal microscopes for clinical diagnosis	-42%	-59%	\$0.029
Bone Medical	BNE	5	Developing treatments for bone and joint degenerative diseases such as arthritis and osteoporosis. <b>Completed 50:1 share consolidation</b>	-25%	-64%	\$0.018

## Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/14
Bioxyne	BXN	3.8	Sale and distribution of probiotics.	138%	375%	\$0.019
Advanced Surgical Design & Manufacture	AMT	3	A developer and manufacturer of prosthetic implants and medical devices	33%	-43%	\$0.060
Actinogen	ACW	2.2	Diversified biotechnology company. Collaborating with Leaf Energy on bioethanols project and with Curtin University on cancer stem cells.	-76%	-73%	\$0.011
Medigard	MGZ	2	Developed retractable syringe technology and other safety medical products.	15%	-23%	\$0.023
Agenix	AGX	1	Seeking to outlicenseThromboview, an imaging agent. Acquired TB diagnostic assets from Tyrian Diagnostics.	-35%	-52%	\$0.011

**Capitalisation Total** 8,215

## Listed Biotech Investment Funds or Companies

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/14
Biotech Capital	BTC	2	The entity is engaged in the orderly sale of assets.	0%	25%	\$0.025

**Capitalisation Total** 2

**Capitalisation Total - All Indices** 51,905

## Top Ten Movers - FY2014

Company	Code	Cap. \$m	Change - Year	Price 30/06/14
OBJ	OBJ	121	720%	\$0.082
Bioxyne	BXN	3.8	375%	\$0.019
Resonance Health	RHT	15	300%	\$0.040
Progen Pharmaceuticals	PGL	44	256%	\$0.800
Benitec Biopharma	BLT	134	234%	\$1.170
Imugene	IMU	8	225%	\$0.013
Genera Biosystems	GBI	31	224%	\$0.340
Anteo Diagnostics	ADO	158	217%	\$0.190
Admedus	AHZ	195	176%	\$0.135
Compumedics	CMP	24	164%	\$0.145

## Top Ten Decliners - FY2014

Company	Code	Cap. \$m	Change - Year	Price 30/06/14
Pharmaxis	PXS	20	-53%	\$0.066
Optiscan Imaging	OIL	5	-59%	\$0.029
Genetic Technologies	GTG	24	-62%	\$0.036
Bone Medical	BNE	5	-64%	\$0.018
AcruX	ACR	175	-70%	\$1.050
Universal Biosensors	UBI	35	-70%	\$0.200
Actinogen	ACW	2.2	-73%	\$0.011
Reva Medical	RVA	47	-75%	\$0.140
Bluechiip	BCT	5	-75%	\$0.041
QRxPharma	QRX	13	-92%	\$0.080

**How Bioshares Rates Stocks**

For the purpose of valuation, Bioshares divides biotech stocks into two categories. The first group are stocks with existing positive cash flows or close to producing positive cash flows. The second group are stocks without near term positive cash flows, history of losses, or at early stages of commercialisation. In this second group, which are essentially speculative propositions, Bioshares grades them according to relative risk within that group, to better reflect the very large spread of risk within those stocks. For both groups, the rating “Take Profits” means that investors may re-weight their holding by selling between 25%-75% of a stock.

**Group A**

Stocks with existing positive cash flows or close to producing positive cash flows.

- Buy** CMP is 20% < Fair Value
- Accumulate** CMP is 10% < Fair Value
- Hold** Value = CMP
- Lighten** CMP is 10% > Fair Value
- Sell** CMP is 20% > Fair Value  
(CMP–Current Market Price)

**Group B**

Stocks without near term positive cash flows, history of losses, or at early stages commercialisation.

**Speculative Buy – Class A**

These stocks will have more than one technology, product or investment in development, with perhaps those same technologies offering multiple opportunities. These features, coupled to the presence of alliances, partnerships and scientific advisory boards, indicate the stock is relative less risky than other biotech stocks.

**Speculative Buy – Class B**

These stocks may have more than one product or opportunity, and may even be close to market. However, they are likely to be lacking in several key areas. For example, their cash position is weak, or management or board may need strengthening.

**Speculative Buy – Class C**

These stocks generally have one product in development and lack many external validation features.

**Speculative Hold – Class A or B or C**

**Sell**

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