

In this edition...

It's a bear market and not just for biotech. In the June quarter the Bioshares Index fell 11.9% but so did the ASX 300 Index (-11.8%). The Nasdaq Biotech Index lost almost 15%. Without the stabilising effect of Heartware International, up 78% in the June quarter, the fall in the Bioshares Index would have been closer to 18%. What's next, especially on the funding front? Continued weakness, with more companies turning to hybrid financing to keep their operations going likely. We update readers on a key deal for CathRx, and note progress at LBT Innovations.

The Editors

Companies Covered: CXD, LBT, 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)	70.0%
Year 4 (May '04 - May '05)	-16.3%
Year 5 (May '05 - May '06)	77.8%
Year 6 (May '06 - May '07)	17.3%
Year 7 (May '07 - May '08)	-36%
Year 8 (May '08 - May '09)	-7.3%
Year 9 (May '09 - May '10)	49.2%
Year 10 (May '10 - Current)	-6.3%
Cumulative Gain	172%
Av Annual Gain (9 yrs)	18.5%

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Bioshares

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

Quarterly Review**Rolling Backwards Down The Hill**

The **Bioshares Index** fell 11.9% in the June quarter, 2010, broadly in line with the stockmarket-wide decline as measured by the **ASX 300 Index**, which fell by 11.8%. The **Nasdaq Biotech Index**, a key measure of global biotech investment sentiment, fell 14.8% for the quarter. Showing more resilience, the **Bioshares Large Cap Index**, which comprises **CSL, Resmed, Cochlear** and **Sigma Pharmaceuticals** decreased by 6.4% for the quarter ending June 30, 2010.

CSL, which was capitalised at \$17.9 billion at June 30, dominates the Bioshares Large Cap Index and shares in that company fell by 11% in the June quarter. Modest gains of 3% for Resmed and 2% for Cochlear offset the influence in the index of CSL stock. Sigma Pharmaceuticals stock fell 10% for the quarter, however, its much reduced capitalisation (now standing at ~\$500 million) means that it made a much smaller contribution to the index.

The stock with the most weight in the Bioshares Index is now **Heartware International**, which was capitalised at \$1.2 billion at June 30. If the contribution of a 78% increase in the price of Heartware is subtracted from the Bioshares Index, a fall of 17.6% would have been recorded for the small to medium biotech stocks. Of the 110 stocks in the sector, 90 experienced share price declines over the quarter.

The next biggest stock in the Bioshares Index leader is **Pharmaxis**. Towards the end of the quarter, this company announced results from its second Phase III trial (CF302), stating that the trial had narrowly missed an endpoint. Pharmaxis shares fell 33% in response to the news and declined 27% on a quarterly basis. Herbal supplement company Blackmores held steady, with a 1% gain and syringe company Unilife Corporation posted a 7% gain.

One of the few strong performers for the quarter was **QRx Pharma**, with its share price increasing by 28% on the back of positive clinical developments of both the immediate release and controlled release versions of its novel combination pain drug MoxDuo.

Acrux, which partnered its Axiron testosterone gel product with **Eli Lilly** in March, and also regained the rights to Luramist (female testosterone product) from **Vivus**, saw its stock decrease by 23% for the quarter. Despite holding an estimated \$60 million in the bank, perhaps the fall in this stock price more than most signifies the degree of weakened interest in biotech stocks at the moment.

– Cont'd over

Index performances by Quarter

	Q2 2009	Q3 2009	Q4 2010	Q1 2010	Q2 2010
Bioshares Index	20.3%	35.1%	7.2%	-3.7%	-11.9%
Nasdaq Biotech Index	9.8%	12.0%	0.5%	11.3%	-14.8%
Bioshares Large Cap Index	1.1%	4.2%	0.2%	9.7%	-6.4%
ASX 300 Index	10.6%	20.1%	2.7%	0.0%	-11.8%

Selected Clinical Trial Developments - June Quarter 2010

Company	Code	Product/Therapeutic	Event
1 ASDM	AMT	Peripheral Access Device (Hypertensive Extracorporeal Limb Perfusion)	Initiated 40 pt trial at multiple Sydney sites
2 Avita Medical	AVH	ReCell (burns)	Treated first pt w ith ReCell Spray-on-Skin treatment in US trial
3 Avexa	AVX	apricitabine (ATC) (HIV)	Program closed
4 Benitec	BLT	Triple vector	Opens HIV pilot study of the safety and feasibility of a therapy using T-cells treated w ith a lentiviral vector encoding multiple anti-HIV RNAs, for recruitment
5 BioMD	BOD	Gynecel	Trial discontinued due to infection complication
6 Biomix	BNO	BNC210 (anti-anxiety)	Completed second Phase I trial; pts administered food w hile drug w as dosed; drug w as w ell tolerated and free of significant side effects; Four-fold increase in blood drug levels following food intake established
7 Cbio	CBZ	Xtoll (rheumatoid arthritis)	Enrollment update - 114 of 150 pts now recruited for Phase I trial
8 Eastland Medical	EMS	ArTiMist (sub-lingual spray - anti-malarial)	Completed Phase I trial - show n to rapidly kill malaria parasites; w as w ell tolerated
9 Healthlinx	HTX	Ovplex	Commenced trial in 1150 samples using 5 current biomarkers and 2 additional biomarkers
10 Mesoblast	MSB	Neofuse (Allogeneic mesenchymal precursor stem cells - MPCs)	Completed enrollment in trial in pts w ith posterolateral lumbar spinal fusion; no cell related adverse events reported
11 Neuren Pharmaceuticals	NEU	NNZ-2566 (traumatic brain injury)	Commenced Phase II trial; 260 pts to be enrolled
12 Pharmaxis	PXS	Bronchitol (mucolytic)	Released 26 week results from second of tw o Phase III studies in cystic fibrosis; 318 pts. Achieved an 8.6% stat. sig increase in FEV1 from baseline; did not meet primary endpoint of FEV1 (ml) versus control over 26 weeks.
13 QRxPharma	QRX	MoxDuo IR (pain)	Completed first of tw o Phase III studies; 522 pts enrolled; MoxDuo IR show ed statistically superior analgesic effect to components of morphine and oxycodone
14 QRxPharma	QRX	MoxDuo CR (pain)	Completed Phase I of controlled release tablet; 14 healthy volunteers; pharmacokinetics study
15 Sirtex Medical	SRX	SirSpheres (liver cancer)	Announced results from multi-centre Asian trial; 35 pts treated w ith Nexavar and Sir-Spheres; Median overall survival w as 11.75 months
16 Sunhine Heart	SHC	C-Pulse (heart assist device)	Completed first minimally invasive implant; ninth pt implanted in feasibility trial
17 Tissue Therapies	TIS	VitroGro (w ound healing)	Interim results, Perth study - five additional pts treated for 24 days; of 17 pts, 3 w ounds 100% healed w ithin 24 days; ave reduction in size w as 39.2%

Biota shares slumped dramatically in the March quarter, recording a 55% fall. The lumpy flows of royalty revenue from sales of the flu drug Relenza and occurrence of the northern hemisphere summer season were behind the fall.

Some other stocks that fell during the quarter were **ChemGenex** (-32%) after receiving FDA guidance that it needs to develop a T315I mutation diagnostic for its leukemia drug Omapro, **Impedimed** (-25%), **Prima Biomed** (-25%), **Starpharma** (-22%), **Halcygen Pharmaceuticals** (-22%) and **Biomix** (-19%).

One strong gainer, but off a low base was **CathRx** (+77%). This company finalised a novel arrangement for the marketing of its electrophysiology catheters in Europe with Pioneer medical (see page 3 for further discussion).

Capital Raisings

In total, \$71 million was raised in the June quarter compared to \$90 million in the previous quarter, bringing the total for the half year to \$161 million (H1 2009 - \$160 million).

Mesoblast (now Mesoblast Group) consolidated its 67% holding in Angioblast Systems, and also raised \$24 million. A further \$13 million will be placed once shareholder approval is obtained.

Although **Impedimed** raised \$17.5 million, and **CathRx** raised \$12 million through combinations of placements and rights issues, an increasing number of companies are turning to convertible note or similar hybrid debt/equity financings. Providers of these funding arrangements include **La Jolla Cove Investors** and **Springtree Special Opportunities Fund**.

Four companies that have followed the path of **Healthlinx**, **Viralytics**, **Prima Biomed** and **Virax** in obtaining hybrid finance are **Neuren Pharmaceuticals**, **Cbio**, **Benitec** and **Avita Medical**.

Outlook

Negative sentiment towards equity markets is likely to be maintained in the short term. This is likely to flow through to biotech stocks, a consequence being that identifiable positive progress is less likely to be rewarded with appropriate share price gains.

Bioshares Model Portfolio (2 July 2010)

Company	Price (current)	Price added to portfolio	Date added
Sunshine Heart	\$0.037	\$0.036	June 2010
Biota Holdings	\$0.96	\$1.09	May 2010
Tissue Therapies	\$0.19	\$0.21	January 2010
QRxPharma	\$1.15	\$0.25	December 2008
Hexima	\$0.21	\$0.60	October 2008
Atcor Medical	\$0.12	\$0.10	October 2008
CathRx	\$0.27	\$0.70	October 2008
Impedimed	\$0.57	\$0.70	August 2008
Mesoblast	\$1.83	\$1.25	August 2008
Circadian Technologies	\$0.52	\$1.03	February 2008
Patrys	\$0.10	\$0.50	December 2007
Bionomics	\$0.28	\$0.42	December 2007
Cogstate	\$0.25	\$0.13	November 2007
Sirtex Medical	\$4.78	\$3.90	October 2007
Clinuvel Pharmaceuticals	\$0.24	\$0.66	September 2007
Starpharma Holdings	\$0.53	\$0.37	August 2007
Pharmaxis	\$2.07	\$3.15	August 2007
Universal Biosensors	\$1.46	\$1.23	June 2007
Probiotec	\$1.34	\$1.12	February 2007
AcruX	\$1.81	\$0.83	November 2004
Alchemia	\$0.48	\$0.67	May 2004

Portfolio Changes – 2 July 2010**IN:**

No changes.

OUT:

No changes.

Capital Raisings by Australian-listed Biotech Companies Q2 2010

Company	Investment Manager or Investor	Type of raising	Funds raised (\$M)
1 Mesoblast	Southern Cross Equities/Lodge Partners	Placement (a further \$13 m s.t.s.a)	\$24.00
2 Impedimed		Placement	\$10.00
3 Impedimed		Rights Issue	\$7.50
4 CathRx		Rights Issue	\$6.87
5 CathRx		Placement	\$5.11
6 Nusep		Rights Issue	\$4.50
7 Biodiem		Rights Issue	\$3.50
8 Prima Biomed	Springtree Spec. Opp. Fund	Conv. Loan Funding (T9,T10,T11)	\$2.10
9 Fluorotechnics	Hunter Hall	Rights Issue	\$1.62
10 Prana Biotech	Quintiles	Placement	\$1.15
11 Healthlinx	Stonebridge Securities	Placement	\$0.75
12 Immuron		SPP	\$0.69
13 Viralytics		CN	\$0.56
14 Bioprospect		SPP	\$0.42
15 Cbio	Springtree Spec. Opp. Fund	Conv. Loan Funding (T1,T2)	\$0.42
16 Cbio		SPP	\$0.40
17 Healthlinx	Springtree Spec. Opp. Fund	Conv. Loan Funding (T6,T7,T8,T9)	\$0.38
18 Genesis R&D		Placement	\$0.37
19 Neuren Pharm.		Conv. Loan Funding (T1,T2)	\$0.30
20 Acuvax		Rights Issue	\$0.19
21 Eastland Medical		CN	\$0.15
22 Avita Medical	La Jolla Cove Investors	CN	\$0.13
23 Benitec	La Jolla Cove Investors	CN - part conversion	\$0.05

Total raised in Q2 2010**\$71.1****Total raised in Q1 2010****\$90.0****Total - 2010****\$161.2**

CathRx – Betting on a Shift to Reprocessed Catheter Systems

CathRx (CXD: 26.5 cents) has signed a supply agreement with **Pioneer Medical Devices** in Germany. Under the agreement Pioneer will re-badge CathRx's cardiac catheters and start selling the systems as Pioneer branded products.

The agreement with pioneer is not just for Germany but for all of Europe for five years. It is a non-exclusive relationship, which allows CathRx to continue selling its catheters through other European distributors under its own brand.

The key point to this arrangement with Pioneer is that Pioneer is betting its business on a shift in practice in Europe, where re-use of catheters is being promoted to reduce healthcare costs. Reprocessing of catheters has started already with the take up the strongest in Germany. The reprocessing market is estimated to make up less than 10% of the total catheter market at present.

Pioneer Medical Devices is a relatively new business formed by Robert Schrodel. Schrodel was formerly head of European operations for Vanguard AG. The CathRx catheters will be one of the first products Pioneer will be selling. Pioneer is seeking to build a European reprocessing medical device business. Schrodel is known as the pioneer of reprocessing of medical devices in Europe.

CathRx found out the hard way that trying to compete against the major medical device companies selling the disposable catheter market was just too difficult i.e competitive. Its new approach is to enter the market from the emerging catheter reprocessing route. Pioneer is the first group that will be utilising the CathRx products. CathRx is also seeking to form similar OEM deals with other medical device groups in other regions, including the US.

One of the benefits of the CathRx technology is with its removable stylets, which lends itself to reuse. The company is the only producer of catheters where the three modules (sheath, stylet and extension cable) are individually interchangeable. The CathRx stylets inside the catheters are approved for use for up to 20 times.

CathRx's CEO, Jeff Goodman, expects that by year's end the company should have made good inroads into the reprocessing market. CathRx will be paid for the sale and for each reuse of its catheters. Pioneer will lease rather than sell the catheters to customers. The difficult global economic conditions and stresses on healthcare budgets provide an ideal opportunity to disrupt existing healthcare practises with such a reprocessing system. Reprocessing reduces costs by between 30%-40%, also reducing hospital waste charges. The company will also look to introduce reprocessable ablation catheters in coming months.

In the first nine months of this year CathRx generated receipts from customers totalling only \$294,000 with no cash received from customers in the first three months of this financial year. The company is capitalised at \$38 million. At 27 April the company had \$8.4 million in cash.

Bioshares recommendation: **Speculative Hold Class B**

LBT Innovations' PREVI Isola Rollout Gains Traction

This week saw LBT Innovations (6.2 cents) first product launched in Australia by its partner bioMerieux. Sonic's Melbourne Pathology has purchased its first robotic agar plate streaking system, called the PREVI Isola. This brings the total to at least 11 countries that have the system now installed.

The product is manufactured, sold and distributed by French group bioMerieux. It is also being used in the USA, France Germany, Italy, the Netherlands, Sweden, Belgium, China, Japan and in Latin America. The number of installed bases is unknown. BioMerieux operates in over 150 countries with around 6,300 employees. There are currently around 83,000 clinical microbiology testing sites around the world with bioMerieux having an installed instrument base of around 55,000 units.

LBT Innovations has received \$10.1 million in licensing payments from BioMerieux in addition to US\$240,000 of royalties in CY2009 and US\$360,000 in minimum royalties to be received this year. Ongoing, LBT Innovations will receive royalties based on applicator sales, the applicators being the disposable plastic streaking unit used when processing each agar plate.

Earlier this year LBT Innovations won a 2010 Medical Design Excellence Award in New York at the world's largest medical OEM event for the development of its PREVI Isola instrument. It should be seen as an example of very successful product development with the product commercialised in only three years (May 2008) after the technology was first in-licensed by LBT Innovations from Medvet Sciences in Adelaide in 2005.

As the company waits for more systems to be sold and its royalty entitlement to grow, it is well placed to develop a second product.

The company has filed a provisional patent on the new invention and is currently conducting proof-of-concept studies. The company has not disclosed the new product development only to say that it also provides automation improvements in the microbiology pathology market. The company has completed Australian and international market research to confirm demand for its proposed product.

An indication that existing shareholders want to enjoy some of the returns from the first product's success, LBT Innovations has indicated that it is reviewing funding alternatives for the second project, which includes potentially finding an early partner.

For LBT Innovations and its shareholders, it may become an attractive ongoing royalty that will build each year as the installed base of the PREVI Isola grows. Having been on the market for two years, we expect sales of the system should start to gain good traction. We estimate the company has around \$5 million in cash. Capitalised at around \$6 million, LBT an attractive investment consideration for longer-term investors.

Bioshares recommendation: **Speculative Buy Class A**

The Australian Listed Life Sciences Sector

June 30, 2010: Capitalisation \$34.7 billion, 110 companies

Bioshares Large Cap. Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/10
CSL	CSL	17,909	Manufactures pharmaceutical products including vaccines and human plasma fractions	-11%	1%	\$32.58
Resmed Inc.	RMD	5,479	Manufactures diagnostic and treatment equipment for sleeping disordered breathing	3%	39%	\$7.23
Cochlear	COH	4,202	Manufactures cochlear hearing implants	2%	29%	\$74.32
Sigma Pharmaceuticals	SIP	495	Pharmaceutical manufacturing and wholesaling	-10%	-66%	\$0.42

Capitalisation Total 28,085

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/10
Heartware International	HIN	1,191	Developing a mechanical heart pump (LVAD)	78%	182%	\$2.48
Pharmaxis	PXS	464	Marketing a lung function test, Aridol, and developing the Bronchitol product to treat cystic fibrosis, bronchiectasis and COPD.	-27%	-15%	\$2.06
Blackmores	BKL	372	Manufactures vitamin, mineral and herbal supplements and skin & hair products in Australia and N.Z.	1%	39%	\$22.30
Unilife Corporation	UNS	355	Developer of retractable syringes	7%	261%	\$1.12
AcruX	ACR	291	A Pooled Dev. Fund commercialising a drug delivery technology that uses sunscreen penetration enhancers to aid transdermal drug delivery	-23%	59%	\$1.81
Mesoblast	MSB	286	Developing therapies based on mesenchymal pre-cursor stem cells, with applications in cartilage regrowth and heart and bone repair.	-9%	123%	\$1.85
Sirtex Medical	SRX	273	The company's core technology uses radioactive particles to irradiate tumours in the liver. Approved for use in most major regions.	-18%	46%	\$4.90
Cellestis	CST	264	Marketing a diagnostic for latent tuberculosis	-7%	-9%	\$2.75
Universal Biosensors	UBI	244	Development, manufacture and commercialisation of a range of in vitro diagnostic tests for point-of-care use	-10%	66%	\$1.55
API	API	190	Pharmaceutical wholesaler	-36%	-32%	\$0.39
Biota	BTA	183	Commercialised Relenza anti-flu drug and flu diagnostic kits. Now developing an improved version, laninamivir with partner Daiichi Sankyo.	-55%	-15%	\$1.02
Scigen	SIE	166	Developer and manufacturer of biopharmaceuticals. Company is based in Singapore and was spun out of Sonic Healthcare in 2002.	7%	50%	\$0.30
Starpharma Holdings	SPL	129	Developer of pharmaceutical applications of chemical scaffolds known as 'dendrimers'.	-22%	59%	\$0.54
QRxPharma	QRX	121	Developing a 'dual opioid' drug to treat moderate to severe pain.	28%	203%	\$1.18
Nanosonics	NAN	120	Developing a novel disinfection technology, the first product is a point of care ultrasound probe disinfection unit	-12%	33%	\$0.53

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/10
Alchemia	ACL	98	Commercialising new solid phase carbohydrate synthesis technology. First product, a synthetic heparin, to be launched by Dr Reddy's in 2009/10	-16%	45%	\$0.52
Bionomics	BNO	86	Developing drugs to treat cancer and CNS diseases, and has also developed a gene diagnostic for epilepsy.	-19%	29%	\$0.27
ChemGenex Pharmaceuticals	CXS	84	Developer of the drug Omacetaxine, which has potential to treat CML patients that develop the T315i mutation.	-32%	-55%	\$0.30
Halcygen Pharm.	HGN	83	Developing an improved dosing anti-fungal drug, Subazole and operating manufacturing services	-22%	211%	\$0.56
Phosphagenics	POH	74	Commercialising a drug delivery technology improving the delivery of vitamin E and existing pharmaceutical products through phosphorylation.	-13%	-26%	\$0.10
Prima Biomed	PRR	73	Developing the CVac immunotherapy.	-25%	110%	\$0.11
Impedimed	IPD	70	Develops devices that aid the diagnosis of secondary lymphoedema, muscle wasting and other disorders	-25%	-12%	\$0.57
Probiotec	PBP	69	Manufacturer, marketer and distributor of a range of over the counter (OTC) pharmaceuticals, complementary medicines and speciality ingredients	-20%	-38%	\$1.31
Clinuvel Pharmaceuticals	CUV	68	Developing an analogue of the alpha-MSH protein as a photo-protective agent	-15%	-20%	\$0.23
Ascent PharmaHealth	APH	67	A generic pharmaceutical manufacturer and distributor. Strides ArcoLabs intends to buy out minority shareholders.	-18%	108%	\$0.27
pSiVida	PVA	65	Developing drug delivery technologies, with a special focus on ophthalmic applications	-16%	75%	\$3.51
Living Cell Technologies	LCT	59	Developing cell therapies for diabetes, haemophilia and Huntington's disease	-14%	19%	\$0.22
Clovercorp	CLV	46	Development and production of omega-3 food additives from tuna oil.	10%	30%	\$0.28
CathRx	CXD	38	Developing novel modular cardiac catheters for the diagnosis and treatment of abnormal heart rhythms	77%	-34%	\$0.27
Prana Biotechnology	PBT	37	Developing drugs to treat CNS diseases such as Alzheimer's and Parkinson's	11%	24%	\$0.16
Solagran	SLA	37	Developing complementary medical compounds called Bioeffectives.	-31%	40%	\$0.13
Cordlife	CBB	34	Rolling out tissue banking services in Australia and Asia	-17%	7%	\$0.37
Somnomed	SOM	31	Commercialising an oral device for the treatment of sleep apnea and snoring.	-15%	73%	\$0.80
Genera Biosystems	GBI	28	Develops, manufactures and distributes advanced molecular diagnostic tests, with a particular focus on women's health.	-39%	-15%	\$0.45
Avexa	AVX	28	Programs suspended. Direction of company being debated by shareholders.	-78%	-71%	\$0.03

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/10
Anteo Diagnostics	ADO	28	Developer of a biological coatings technology that can be applied to immunoassays, bio-separations, drug delivery and other medical devices	2%	440%	\$0.05
Institute of Drug Technology	IDT	27	Manufacturer of pharmaceutical ingredients to international standards for major pharmaceutical groups.	-26%	-57%	\$0.62
Tissue Therapies	TIS	25	Developing the VitroGro product for ulcer and wound healing	-18%	13%	\$0.18
OBJ	OBJ	25	Developing transdermal drug delivery technologies	-45%	450%	\$0.02
Progen Pharmaceuticals	PGL	24	A developer of cancer therapeutics	-27%	-53%	\$0.40
Circadian Technologies	CIR	23	Developing drugs, including antibodies, around the VEGF C and VEGF D targets	-31%	-32%	\$0.50
Southern Dental Industries	SDI	21	Manufacture & distribution of amalgam (fillings) & other dental materials and product R&D.	-20%	-20%	\$0.18
Compumedics	CMP	21	Develops, manufactures and markets sleep diagnostic and monitoring equipment.	-35%	-7%	\$0.13
PharmAust	PAA	21	Operates Epichem and PharmAust. Investing in Manufacturing, which provide products and services to biotech and pharma companies. Holds oil and gas investments.	64%	310%	\$0.08
Immuron	IMC	21	Specialises in R&D of hyper-immune bovine colostrum products for therapeutic use in animals and humans.	-14%	165%	\$0.07
Sunshine Heart	SHC	20	Developing the C-Pulse heart assist device. The C-Pulse wraps around and compresses the aorta, increasing blood flow through the body.	9%	-26%	\$0.04
Brain Resource Corp	BRC	20	Development and commercialisation of functional brain analysis techniques	-17%	-20%	\$0.22
Patrys	PAB	19	Developing human antibody therapies for the treatment of lung, pancreatic, gastric and colon cancers	-31%	-23%	\$0.10
Hexima	HXL	18	Research and development of genetic technologies that can enhance the resistance of crops to insects and fungal pathogens.	-49%	-37%	\$0.22
Cbio	CBZ	17	Drug development company, focus is on Xtoll product for rheumatoid arthritis	-74%		\$0.27
Viralytics	VLA	17	Developing a cancer treatment based on the application of viruses (oncolytic virus technology)	-31%	12%	\$0.04
Novogen	NRT	17	Developing analogues of naturally occurring phenolic hormones to treat cancers and other conditions.	-63%	-68%	\$0.17
Cogstate	CGS	17	Marketing cognitive performance diagnostic products	-12%	4%	\$0.25
Phylogica	PYC	17	Developing phylomer (protein fragment shapes) compound libraries for use in human therapeutics.	-22%	25%	\$0.07
Healthlinx	HTX	16	Detecting novel functions of known and new protein and peptides for therapeutic purposes.	-32%	275%	\$0.11

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/10
Advanced Surgical Design & Manufacture	AMT	15	A developer and manufacturer of prosthetic implants and medical devices	-14%	54%	\$0.43
USCOM	UCM	15	Marketing a non-invasive heart output function monitor	-44%	-55%	\$0.35
Cyclopharm	CYC	13	A nuclear medicine company that markets the Technegas lung imaging system	-32%	-5%	\$0.08
Benitec	BLT	13	R&D company focusing on gene silencing, specifically DNA delivered RNAi, technology	-26%	28%	\$0.03
Ellex Medical Lasers	ELX	13	Develops, manufactures and markets solid state ophthalmic lasers used to treat secondary cataracts and retinal disorders.	-12%	15%	\$0.15
Eastland Medical Systems	EMS	13	Developing retractable syringes, ClipOn and VetLock, and anti-malarial product ArTiMist.	-58%	3%	\$0.03
Genetic Technologies	GTG	13	Provides DNA paternity testing services and holds broad patents relating to the use of non-coding DNA.	0%	-22%	\$0.04
Avita Medical	AVH	12	Markets ReCell, a skin repair product	-21%	15%	\$0.12
KarmelSonix	KSX	12	Respiratory and pulmonary devices company	-40%	-58%	\$0.02
Austofix	AYX	12	Manufacturer and developer of orthopaedic fixation devices	0%	18%	\$1.00
NuSep	NSP	12	Manufacture and sale of protein separations technologies	2%	310%	\$0.21
Virax Holdings	VHL	12	Developing a therapeutic and prophylactic vaccine for HIV	-16%	91%	\$0.07
Atcor Medical	ACG	12	Markets the SphygmoCor device, a noninvasive technology that provides information regarding the functioning of the cardiovascular system	-23%	-39%	\$0.12
Vita Life Sciences	VSC	11	Development, manufacture and distribution of prescription and OTC medicines as well as complementary and alternative medicines, dietary supplements and health foods	-4%	15%	\$0.23
Medical Developments	MVP	11	Commercialising the Penthrax inhaler for temporary pain relief. Used widely in ambulances across Australia.	16%	54%	\$0.22
Analytica	ALT	11	A medical devices company that has developed a retractable syringe	-55%	18%	\$0.03
Bone Medical	BNE	10	Developing treatments for bone and joint degenerative diseases such as arthritis and osteoporosis.	-36%	-55%	\$0.09
Medigard	MGZ	9	Developed retractable syringe technology and other safety medical products.	4%	47%	\$0.13
Calzada	CZD	9	Formerly Metabolic Pharmaceuticals. Holds a 100% stake in PolyNovo, a polymer chemistry company.	-24%	-7%	\$0.03
Biodiem	BDM	8	Focused on the development of LAIV influenza vaccines	-41%	24%	\$0.11

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/10
Biotron	BIT	8	Developing a compound to treat HCV	-31%	-22%	\$0.07
Neuren Pharmaceuticals	NEU	8	Developing neuroprotective therapeutics	-39%	-17%	\$0.02
Antisense Therapeutics	ANP	8	Developing antisense compounds to treat multiple sclerosis and acromegaly	-41%	-65%	\$0.01
ITL	ITD	8	Develops and distributes medical devices such as safety equipment to prevent needle stick injuries and sterile preparation kits.	-11%	-28%	\$0.06
BioProspect	BPO	7	Developing insecticides from naturally occurring molecules	-52%	-24%	\$0.01
Stirling Products	STI	7	Development of R-Salbutamol based products and the Immunoxell immune modulator	-50%	-57%	\$0.01
Optiscan Imaging	OIL	7	Manufacture of confocal microscopes for clinical diagnosis	-21%	27%	\$0.05
LBT Innovations	LBT	6	Developed the MicroStreak technology for the automation of microbiology laboratory processing	-32%	-48%	\$0.07
Cellmid	CDY	6	Developing therapies that target the midkine protein	-32%	6%	\$0.02
Resonance Health	RHT	6	Marketing the FerriScan technology, a non-invasive tool for measuring liver iron levels	-32%	21%	\$0.02
Holista Colltech	HCT	6	Has developed a novel technology for the extraction of collagen from sheepskins	-12%	15%	\$0.12
Cryosite	CTE	6	Provides specialised storage services, especially for umbilical cord blood	0%	20%	\$0.12
Fluorotechnics	FLS	6	Development and sale of scientific equipment and consumables, including fluorescent stains	-64%	-76%	\$0.12
Imugene	IMU	5	Developing animal products such as antibiotic alternatives used in the stock feed industry using a vaccine and gene therapy approach	-26%	-50%	\$0.03
Tyrian Diagnostics	TDX	4	Developer of diagnostic products, including the ReadRite-Alpha Amylase test (a wheat quality test)	-40%	-65%	\$0.01
Atos Wellness	ATW	3	Manages wellness centres in Singapore, Malaysia, India, Australia, Austria and Germany. Suspended from quotation.	0%	38%	\$0.02
Probiomics	PCC	3	Proprietary ownership of a unique probiotic strain	-42%	57%	\$0.01
BioMD	BOD	3	Developing a tissue engineering technology, termed ADAPT	-52%	-45%	\$0.02
Acuvax	ACU	3	Holds interests in various therapeutics and vaccines	-64%	-86%	\$0.00
Medic Vision	MVH	2	Marketing training software and hardware for surgeons	-40%	-73%	\$0.01

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/10
Giaconda	GIA	2	Developed novel (patented) combinations of registered drugs for the treatment of gastrointestinal disorders.	-25%	-3%	\$0.03
NeuroDiscovery	NDL	2	Focusing on pain drug development following pending management buyout of electrophysiology business	-14%	-3%	\$0.04
IM Medical	IMI	2	Markets the Intelliheart Cardiovascular Diagnostic System	-50%	-75%	\$0.00
Helicon Group	HCG	1	Exploiting niche market opportunities for medical products in China and other Asian markets.	-44%	-44%	\$0.02
Actinogen	ACW	1	Early stage developer of antibiotics that show activity against MRSA and VRE bacteria	-40%	-72%	\$0.03
Select Vaccines	SLT	1	Development and commercialisation of infectious diseases diagnostics, vaccines and therapeutics for hepatitis-related diseases	-50%	33%	\$0.00
Genesis Research & Development Corp.	GEN	1	Operations suspended	-48%	-50%	\$0.03
Teleso Technologies	TEO	1	Investigating new business activities	-77%	-63%	\$0.01
Capitalisation Total		6,596				

Listed Biotech Investment Funds or Companies

Company	Code	Cap. \$m	Principal Activities	Change - Quarter	Change - Year	Price 30/06/10
BPH Corporate	BPH	14	Formerly Biopharmica. Managing cancer treatment and detection and bacterial DNA diagnostic projects. Portfolio investment approach.	-15%	209%	\$0.07
Biotech Capital	BTC	13	A Pooled Development Fund investing in unlisted Australian biotech companies and in public biotechs, including Alchemia, Starpharma, Neurodiscovery and Phylogica.	-14%	13%	\$0.18
Xceed Capital	XCD	2	Holds a stake in Calzada and owns 100% of Boron Molecular, a chemistry services company.	-23%	-50%	\$0.01
Capitalisation Total		29				
Capitalisation Total - All Indexs		34,710				

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.

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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