

In this edition...

A stock market correction during the quarter saw equities fall by 11% at one stage only to rebound and finish the quarter at all time highs. No so for biotech stocks which fell by 9.5% over the quarter and stayed there. It's the second negative quarter in succession although a rebound can be expected in coming quarters.

There were some disappointing clinical trial results which contributed to the fall. Progen's lung cancer trial was one although the result does not hinder its main program.

The editors

Companies covered: PGL

	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 (from 4 May '07)	-7.2%
Cumulative Gain	203%
Av Annual Gain (6 yrs)	26.8%

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Blake Industry & Market Analysis Pty Ltd
ACN 085 334 292
PO Box 193
Richmond Vic 3121
AFS Licence
No. 258032

Enquiries for *Bioshares*
Ph: (03) 9326 5382
Fax: (03) 9671 3633
Email: info@bioshares.com.au

David Blake
Ph: (03) 9326 5382
Email: blake@bioshares.com.au

Mark Pachacz
Ph: (03) 9671 3222
Email: pachacz@bioshares.com.au

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Bioshares

5 October 2007
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Delivering independent investment research to investors on Australian biotech, pharma and healthcare companies.

Quarterly Review

Biotech Stocks Hit By Global Volatility

Investor interest in small-to-medium cap Australian listed life science companies weakened considerably in the September quarter, 2007. **The Bioshares Index**, a weighted index measure of the value of small-to-medium cap drug development, medical device, diagnostic and other companies fell 9.5% in the September quarter. The decrease followed a 5.6% fall in the previous quarter. The Bioshares Index was calculated using the capitalisations of 121 companies in the September quarter. The broader market, as measured by the ASX 300 Index, rebounded to produce a 4.5% increase after a sharp fall during the quarter.

In contrast the **Bioshares Large Cap Index**, a weighted index measure of the value of the larger stocks, including CSL, Resmed, Cochlear and Sigma Pharmaceuticals, posted a 14.9% gain. The foremost global measure of investor sentiment towards biotech, the Nasdaq Biotech Index, increased by 6.4% in the September quarter, with this particular index appearing to be trending upwards.

Small-to-medium cap biotech stocks have fallen out of favour with investors for several reasons. Firstly, in times of market instability such as has occurred globally in recent months, speculative stocks can be amongst the first discarded by investors needing to liquidate positions to revert to a more risk-averse position. The poor liquidity in smaller speculative stocks can result in sharp price drops when even a small number of investors seek to exit their investments.

Secondly, over the last two and half years a group of ASX-listed biotech companies have emerged that have proved capable of sustaining and attracting investor support. This is because they have generally been successful in moving their products under development further down the value creation chain and closer to the market. The success of these companies, of which **Pharmaxis**, **ChemGenex Pharmaceuticals** and **Acrux** are examples, has been at the expense of many more smaller companies. There were 51 companies capitalised at less than \$20 million dollars at the close of the September quarter. At the same time there were 23 companies capitalised at \$100 million or greater. Funding is a perpetual concern to many of these micro-cap companies, and the presence of a number of larger companies with more liquid stock means that investment interest at the smaller end of the market is difficult to sustain when there is weak overall sentiment to biotech.

Cont'd over

Index performances by Quarter

	Q3 2006	Q4 2006	Q1 2007	Q2 2007	Q3 2007
Bioshares Index	5.2%	20.6%	6.3%	-5.6%	-9.5%
Nasdaq Biotech Index	1.5%	5.9%	-2.7%	3.3%	6.4%
Bioshares Large Cap Index	2.1%	14.4%	12.5%	-2.3%	14.9%
ASX 300 Index	1.6%	10.4%	5.6%	4.8%	4.5%

Outperformers

Reflecting just how tough life has been for biotech stocks over the last quarter, of the 130 listed companies, only 32 generated a positive gain over the period. **IM Medical** was up 189% for the quarter with the launch of its new product, the Cardanal ECG software that greatly improves the quality of the information generated by ECG. **The Brain Resource Company** was up 40% for the quarter and 123% for the last 12 months after it signed an \$18 million contract in May to develop novel brain biomarkers to predict an individual's responsiveness to treatments for depression and Attention Deficit Hyperactivity Disorder (ADHD).

Brisbane-based diagnostic developer and marketer **Panbio** is on the market with **Inverness Medical Innovation** having declared an interest in buying the company for 34 cents a share. Inverness featured in *Bioshares* #224 and looks to be continuing with its diagnostic company shopping spree. Panbio's stock is up 38% for the quarter to 40 cents and up 82% for the year.

Living Cell Technologies moved one step closer to receiving the go ahead for trials of its porcine islet transplant cells for the treatment of type 1 diabetes. It has received hospital ethics approval and has made its submission to the New Zealand Minister of Health to begin the trial. Its share price was up 36% to 17 cents.

Biosignal has continued to make progress with its anti-biofilm furanone technology, partnering with **Saraya Co** in Japan to enter that market for mouth wash and prevention of bacterial fouling in water cooling towers. Its share price was up 35% for the quarter.

And the blue blood of the Australian life sciences sector, **Cochlear**, **Pharmaxis** and **CSL** generated excellent gains over the quarter, up 28%, 23% and 22% respectively.

Underperformers

Metabolic Pharmaceuticals had more bad news for investors, with its Phase II neuropathic pain trial halted and discontinued after further preclinical studies indicated the trial was unlikely to generate a positive result. Its share price was down 55% for the quarter. The company's main assets now are its \$18 million in cash and its oral peptide delivery platform, which the company will now move into larger animal studies.

Fermiscan Holdings is developing a breast cancer diagnostic test that uses hair samples to predict likelihood of disease. An interim report from its ongoing trial showed that four of 14 positive breast cancer cases were missed because of chemical treatment of the hair, from use of dyes, chemical straighteners or perms. It also showed that in 19% of cases, the positive results conflicted with mammograms (indicating no sign of tumour) although there remains the possibility these patients have undetectable (by mammogram) breast cancer.

Shares in **Clinuvel Pharmaceuticals** were down 52% after one of its largest shareholders, the **Absolute Capital Management Holdings** hedge fund, had indicted it was in distress following recent financial turmoil. Apparently the fund has not sold down its stake in Clinuvel although the fear remains that it may should the price

IPOs in Q3 2007

Company	Code	Funds Raised (M)	Issue price	Price 30/09/07	Gain/loss
Hexima	HXL	\$40.00	\$1.25	\$1.10	-12%
Helicon Group	HCG	\$3.00	\$0.20	\$0.13	-38%
Patrys	PAB	\$25.00	\$0.40	\$0.53	33%

strengthen. Clinuvel's Phase III programs remain on track and the company has \$60 million in cash reserves.

Capital Raisings & IPOs

Australian biotech companies raised \$153 million in follow-on financings in the September quarter 2007. The largest capital raising for the quarter was a \$26.8 million rights issue conducted by **CathRx**. One the IPO front, three companies listed on the ASX and raised a total of \$68 million, led by **Hexima** which raised \$40 million, **Patrys** (\$25 million) and **Helicon Group**, which raised \$3 million. One company, **Vita Life Sciences** also re-listed and raised \$6.6 million through a rights issue.

In all, an estimated \$221 million in funding was secured by biotech firms during the September quarter. However, this figure was down 39% from the previous quarter's figure of \$363 million.

To date, for calendar year 2007, \$715 million has been raised by Australian listed biotech firms or their associates. This is more than any calendar year amount raised in the history of the listed biotech sector in Australia, and it would also suggest that figure for the full year is likely to be in excess of \$800 million, assuming several IPOs get away in the December quarter.

Clinical Trial Activity

Clinical trial activity by Australian biotech firms remains at a high level in the September quarter. Significant developments included **Pharmaxis'** completion of a Phase III study in which its mucociliary clearance product Bronchitol which was evaluated in a 362 patient bronchiectasis trial. The positive data obtained from the trial would appear to have been a significant driver in lifting Pharmaxis' share price 23% in the quarter and its capitalisation to \$721 million.

Acrux used positive results from a Phase II trial of its testosterone product to raise \$22.5 million to support a Phase III study. **Novogen** subsidiary **Marshall Edwards** raised a net US\$16.8 million (approx. \$21 million) to support a Phase III trial of phenoxodiol in 470 ovarian cancer patients.

Neuren Pharmaceuticals commenced its Phase III trial of its peptide glypromate, enrolling its first patients in both New Zealand and Australia.

Progen Pharmaceuticals released data from its Phase II trial of PI-88 in combination with the taxol drug docetaxol, in patients with non small cell lung cancer. The trial did not meet its endpoints. (More comments follow on page 5). And **Sirtex Medical**, a stock that is performing exceptionally well, launched the first randomised trial of its currently selling liver cancer radiation treatment, **SirSpheres**.

Clinical Trial Developments - September Quarter 2007

	Company	Code	Product/Therapeutic	Event
1	Acrux	ACR	Nesterone and Estradiol - MDTs	Completed a Phase I PK study
2	Acrux	ACR	Nesterone and Ethinyl Estradiol - MDTs	Completed a Phase I PK study
3	Acrux	ACR	Testosterone MD-Lotion	Completed Phase II study in 41 pts
4	Agenix	AGX	Thromboview	Recruited first pt in Phase II pulmonary embolism study (imaging diagnostic antibody)
5	Biodiem	BDM	BDM-E (peptide)	Completed dosing of pts in 188 pt Phase I/II trial in diabetic macular oedema
6	Biotron	BIT	BIT-225 (Oral)	Completed Phase Ia trial in 40 healthy subjects (target indications HIV and HCV)
7	Halcygen	HCG	SUBA-Itraconazole	Completed a 14 pt Phase I PK study (anti-fungal)
8	Halcygen	HCG	SUBA-Itraconazole	Completed a 12 pt Phase I PK study (anti-fungal)
9	HealthLinx	HTX	OvPlex	Commenced assaying 160 pt samples from Phase II trial - multi-marker ovarian cancer blood test
10	HeartWare	HTW	HVAD (LVAD heart assist device)	Completed enrolment in 20 pt trial
11	KarmelSonix	KSX	Acoustic Severe Asthma Monitor	Received ethics approval for 30 pt clinical trial from The Alfred Hospital
12	Living Cell	LCT	DiabeCell	Received all ethics and regulatory approvals to commence diabetes cell therapy implant clinical trial
13	Mesoblast	MSB	Stem Cell Therapy (MPSC)	Completed pilot safety trial of autologous cell therapy for severe coronary artery disease
14	Mesoblast	MSB	Stem Cell Therapy (MPSC)	Commenced pilot safety trial of allogeneic cell therapy for of spinal fusion indication
15	Narhex Life Sciences	NLS	DG17	Ethics approval received from SE Sydney AHS for Phase IIa HIV trial
16	Neuren Pharmaceuticals	NEU	Glypromate	Commenced Phase III clinical trial in 600 pts - to treat cognitive impairment after cardiac surgery
17	Neuren Pharmaceuticals	NEU	NNZ-2566	Completed Phase Ib safety traumatic brain injury study in 14 pts
18	Neurodiscovery	NDL	NSL-043	Expanded Phase I safety study to include higher doses (neuropathic pain - target indication)
19	Novogen	NRT	Phenoxodiol	Enrolled first pt in Europe in 470 pt Phase II ovarian cancer trial (First US pt enrolled in June)
20	Pharmaxis	PXS	Bronchitol	Completed 362 pt bronchiectasis Phase III trial
21	Prana Biotech	PBT	PBT-2	Completed enrolment in Phase IIa trial in pts with early Alzheimers disease
22	Progen Pharmaceuticals	PGL	PI-88 (with docetaxol)	Completed Phase II trial in 96 pts with lung cancer; PI-88 in combination with docetaxol did not meet endpoints
23	pSiVida	PSD	Medidur	Partner Alimera began PK study of Medidur in 16 pts - diabetic macular edema
24	pSiVida	PSD	Brachysil	Completes recruitment of 17 pts in Phase II trial for treatment of inoperable pancreatic cancer
25	Sirtex Medical	SRX	Sir-Spheres	Commenced first randomised pilot 28 pt liver cancer trial of Sir-Spheres (radiation therapy), compared to TACE therapy
26	Ventracor	VCA	VentrAssist	Implant of first patient in US Destination Therapy trial (LVAD heart assist device)
27	Viralytics	VLA	Cavatak (oncolytic virus)	Received permission to dose second 3 pt cohort of 9 pt trial

Notes: pt = patient, pts = patients

Capital Raisings by Australian-listed Biotech Companies Q3 2007

Company	Investment manager/Investor	Type of raising	Funds raised (\$M)
CathRx	Wilson HTM	Rights Issue	\$26.8
Acrux	Wilson HTM	Private placement	\$22.5
pSivida		Private placement	\$21.0
Novogen		Placement (US\$16.8M to US subsid. MEI)	\$21.0
Cordlife		Private placement	\$8.0
Agenix		Private placement	\$6.7
Vita Life Sciences	Shaw Stockbroking	Ren. Rights Issue	\$6.6
Heartware		Placement & SPP	\$7.2
KarmelSonix		Private placement	\$5.5
Biopropect	Max Capital Pty Ltd	Options Issue	\$4.8
Unilife Medical Solutions	Bell Potter Securities	SPP	\$3.5
Advanced Ocular Systems	Australian Stockbroking & Adv. Services	Rights Issue	\$3.2
Neurodiscovery		Placement and SPP	\$3.1
NuSep		SPP	\$2.8
Analytica		Non-renounceable rights issue	\$2.2
Eastland Medical	RM Capital Pty Ltd	Private placement	\$2.2
Advanced Ocular Systems		Private placement	\$1.5
Heartware		SPP	\$1.2
Cogstate	Taylor Collison	SPP	\$1.0
Visomed		Private placement	\$1.0
Anadis		Private placement	\$0.7
Colltech		Private placement	\$0.4

Total raised in Q3 2007 \$152.9

IPOs \$68.0

Total raised in Q3 2007 - capital raisings and IPOs \$220.9

Total raised in Q2 2007 \$363.0

Total raised in Q1 2007 \$131.8

Total raised in 2007 \$715.7

Bioshares Model Portfolio (5 October 2007)

Company	Price (current)	Price added to portfolio
Acrux	\$1.37	\$0.83
Alchemia	\$0.84	\$0.67
Biota Holdings	\$1.62	\$1.55
Circadian Technologies	\$1.25	\$1.45
Clinuvel Pharmaceuticals	\$0.42	\$0.66
Cytopia	\$0.53	\$0.46
Chemgenex Pharma.	\$1.02	\$0.38
Optiscan Imaging	\$0.44	\$0.35
Peplin	\$0.90	\$0.83
Peptech	\$1.19	\$1.31
Pharmaxis	\$4.20	\$3.15
Phylogica	\$0.25	\$0.42
Probiotec	\$1.25	\$1.12
Progen Pharmaceuticals	\$3.28	\$3.52
Sirtex Medical	\$4.20	\$3.90
Starpharma Holdings	\$0.36	\$0.37
Sunshine Heart	\$0.19	\$0.19
Tissue Therapies	\$0.48	\$0.58
Universal Biosensors	\$1.41	\$1.23

Portfolio Changes – 5 Oct 2007**IN:**

No changes

OUT:

No changes

Progen PI-88 Fails in Lung Cancer Trial; Phase III Liver Cancer Trial Remains On Track

Progen released results from a cancer trial last month with its lead drug candidate PI-88. This trial, in 96 patients with non small cell lung cancer, failed to achieve positive results. The result was disappointing for Progen although is not overly significant with the company's main focus at present on moving PI-88 into a Phase III liver cancer trial. However, the study did throw up a number of adverse events that may provide important understandings of the potential limitations of PI-88.

Lung cancer a difficult disease

Lung cancer is a very difficult disease to treat with only a 15% survival rate at five years. Surprisingly, the disease has a high 15% cure rate by radiotherapy alone if diagnosed earlier enough. Lung cancer, often caused by smoking, results through a multistep process that brings about genetic changes in the lung tissue. There are a number of treatment approaches that seek to restrict the cellular pathways that allows excessive growth in lung tissue, with angiogenesis inhibition being one.

As with many cancers, the major advances in the medium term will occur not from treatment but from early diagnosis. The search for molecular biomarkers for cancers such as lung, prostate, breast and ovarian cancers is an expanding area of interest for the medical research sector.

Also of interest are recent studies that have shown that most cancers could be caused by a rare type of cancer stem cells that are inherently resistant to chemotherapy and radiotherapy. Nobel Laureate Renato Dulbecco of the **Salk Institute** had previously shown that injection of one single cancer stem cell into a mouse breast tissue could develop into a new breast cancer. Therapies targeting these cancer stem cells could potentially lead to a cure of cancer even in late stage disease, according to an article in the *Journal of Clinical Investigation* this month.

No pharmaceutical treatments for liver cancer

It should be noted that there are no pharmaceutical treatments available for the treatment of liver cancer which remains a severely unmet area of clinical need. **Sirtex Medical's** Sir-Spheres, which uses short half-life radioactive resin beads to irradiate liver tumours, is gaining traction with sales in the last year over \$30 million.

PI-88 is currently in a Phase II physician sponsored prostate cancer trial and a Phase II melanoma study with results from these studies expected to be received in the first quarter and second half of next year. To date positive Phase II studies have been generated in patients with liver cancer, multiple myeloma and melanoma.

Angiogenesis inhibitor

Angiogenesis inhibitors, such as PI-88 and the very successful Avastin (**Genentech**), which is on the market, have been shown to work in some cancer types and not others. In 2002 it was thought that the Avastin drug would not make it to market after a Phase III failure in 462 women with relapsed breast cancer. The following year Genentech, which developed the drug, produced positive results with the drug as a first line combination treatment for colorectal cancer.

Angiogenesis inhibitors stop the formation of new blood vessels and thereby stop tumour growth. The use of these types of drugs as a second or third line therapy, when the tumour has been well established, is likely to be less effective than when used as a first line therapy. Avastin is currently approved as a first line treatment of lung cancer. The planned Phase III liver cancer study for PI-88 will see PI-88 evaluated as a first line pharmaceutical therapy following surgical resection of the liver tumours.

Phase III liver cancer trial to start this year

Progen is planning to start its Phase III liver cancer trial before year's end. The trial will take three years to complete. The company has been granted a fast track approval for the drug which means the company can file rolling submissions for its New Drug Application with the regulator. That process also allows the company look at a surrogate marker, disease free survival, rather than overall survival benefit, which will help bring the drug to market more quickly. A product launch is scheduled at this stage for four years time (end 2011).

Progen is capitalised at \$195 million with \$98 million in cash at June 30 this year.

Bioshares recommendation: **Speculative Buy Class A**

The Australian Listed Life Sciences Sector
September 30, 2007: Capitalisation \$37.5 billion, 130 Companies

Bioshares Large Cap. Index

Company	Code	Cap. \$m	Principal Activities	Change - Qtr	Price 30/09/07
CSL	CSL	19,673	Manufactures pharmaceutical products including vaccines and human plasma fractions.	22%	\$107.30
Cochlear	COH	4,334	Manufactures cochlear hearing implants.	28%	\$77.96
Resmed Inc.	RMD	3,803	Manufactures diagnostic and treatment equipment for sleeping disordered breathing.	1%	\$4.90
Sigma Pharmaceuticals	SIP	1,327	Pharmaceutical manufacturing and wholesaling.	-31%	\$1.47
API	API	489	Pharmaceutical wholesaler.	-16%	\$1.90

Capitalisation Total 29,627

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Qtr	Price 30/09/07
Pharmaxis	PXS	721	Marketing a lung function test, Aridol, and developing the Bronchitol product to treat cystic fibrosis, bronchiectasis and COPD.	23%	\$4.05
Blackmores	BKL	350	Manufactures vitamin, mineral and herbal supplements and skin & hair products in Australia and N.Z.	6%	\$21.70
Biota	BTA	305	Commercialised Relenza anti-flu drug and flu diagnostic kits. Now developing an improved version.	-10%	\$1.67
Peptech	PTD	290	Developing antibody and peptide-based therapeutic products for the treatment cancer and inflammatory diseases and products for fertility control in animals.	-14%	\$1.24
Cellestis	CST	286	Marketing a diagnostic for latent tuberculosis.	-9%	\$2.98
Avexa	AVX	244	Developing antiviral therapies for HIV and Hepatitis B and a novel antibiotic.	-6%	\$0.60
Sirtex Medical	SRX	220	The company's core technology uses radioactive particles to irradiate tumours in the liver. Approved for use in most major regions.	15%	\$3.95
Acruz	ACR	216	A Pooled Dev. Fund commercialising a drug delivery technology that uses sunscreen penetration enhancers to aid transdermal drug delivery.	-10%	\$1.38
Progen Pharmaceuticals	PGL	202	Developing oncology therapeutics, including the anti-angiogenesis compound, PI-88.	-26%	\$3.39
ChemGenex Pharmaceuticals	CXS	196	Genomics/theranostics company with projects in obesity, diabetes, oncology and hypertension.	-6%	\$1.05
Ventracor	VCR	191	Developer of the VentrAssist device, an artificial heart assist device (LVAD).	-22%	\$0.62
Solagran	SLA	188	Developing complementary medicinal compounds called Bioeffectives.	-8%	\$1.13
Novogen	NRT	183	Developing analogues of naturally occurring phenolic hormones to treat cancers and other conditions.	-5%	\$1.88
Mesoblast	MSB	172	Developing therapies based adult stem cells called mesenchymal stem cells, with applications in cartilage regrowth and bone repair.	-21%	\$1.60
Peplin	PEP	171	Developing a plant derived compound, PEP005, to treat non-melanocytic skin cancers and other systemic cancers such as leukemia.	0%	\$0.86

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Qtr	Price 30/09/07
Universal Biosensors	UBI	164	Development, manufacture and commercialisation of a range of in vitro diagnostic tests for point-of-care use.	-12%	\$1.28
Phosphagenics	POH	157	Commercialising a drug delivery technology improving the delivery of vitamin E and existing pharmaceutical products through phosphorylation.	-10%	\$0.26
Heartware	HTW	154	Developing a mechanical heart pump (LVAD).	2%	\$0.62
Fermiscan Holdings	FER	145	Commercialising the use of x-ray diffraction to aid in the screening of breast cancer.	-52%	\$1.01
Clinuvel Pharmaceuticals	CUV	134	Developing an analogue of the alpha-MSH protein as a photo-protective agent.	-52%	\$0.45
Alchemia	ACL	132	Commercialising new solid phase carbohydrate synthesis technology. First product, a synthetic heparin, to be launched by partners in 2008.	-4%	\$0.83
QRxPharma	QRX	110	Developing a 'dual opioid' drug to treat moderate to severe pain.	-13%	\$1.47
Agenix	AGX	100	Has acquired drug development business in China. Also developing Thromboview, a blood clot diagnostic imaging agent.	-4%	\$0.26
Institute of Drug Technology	IDT	94	Manufacturer of pharmaceutical ingredients to international standards for major pharmaceutical groups.	3%	\$2.18
CathRx	CXD	94	Developing novel modular cardiac catheters for the diagnosis and treatment of abnormal heart rhythms	4%	\$2.50
Lipa Pharmaceuticals	LIP	89	A contract manufacturer of complementary healthcare products. Acquisition by CK Life Sciences Int'l under Scheme of Arrangement underway.	15%	\$0.94
Hexima*	HXL	82	Research and development of genetic technologies that can enhance the resistance of crops to insects and fungal pathogens.	-17%	\$1.10
Bionomics	BNO	82	Developing drugs to treat cancer and CNS diseases, and has also developed a gene diagnostic for epilepsy.	0%	\$0.37
pSiVida	PSD	80	Developing and marketing drug delivery technologies, with a special focus on ophthalmic applications.	-33%	\$0.11
Patrys*	PAB	80	Developing human antibody therapies for the treatment of lung, pancreatic, gastric and colon cancers	-17%	\$0.53
Avastra	AVS	68	Consolidating sleep disorder testing centres in the USA	-4%	\$0.67
Polartech	PLT	66	Develops and commercialises medical instruments to diagnose pre-cancer and cancer, in particular cervical cancer and melanomas.	-5%	\$0.55
IM Medical	IMI	66	Markets the Intelliheart Cardiovascular Diagnostic System	189%	\$0.055
Cordlife	CBB	64	Rolling out tissue banking services in Australia and Asia	-4%	\$0.70
GenePharm Australasia	GAA	58	An generic pharmaceutical manufacturer and distributor.	-19%	\$0.42
Ellex Medical Lasers	ELX	58	Develops, manufactures and markets solid state ophthalmic lasers used to treat secondary cataracts and retinal disorders.	1%	\$0.85
Southern Dental Industries	SDI	58	Manufacture & distribution of amalgam (fillings) & other dental materials and product R&D.	3%	\$0.49
Starpharma Holdings	SPL	58	Developer of pharmaceutical applications of chemical scaffolds known as 'dendrimers'.	-15%	\$0.32
Probiotec	PBP	56	Manufacturer, marketer and distributor of a range of over the counter (OTC) pharmaceuticals, complementary medicines and speciality ingredients	0%	\$1.20
Life Therapeutics	LFE	55	A US based company operating a plasma collection business and marketing diagnostic tests for blood-borne diseases and blood-clotting disorders.	-38%	\$0.45

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Qtr	Price 30/09/07
Genetic Technologies	GTG	54	Provides DNA paternity testing services and holds broad patents relating to the use of non-coding DNA.	3%	\$0.15
Scigen	SIE	51	Developer and manufacturer of biopharmaceuticals. Company is based in Singapore and was spun out of Sonic Healthcare in 2002.	0%	\$0.09
Unilife Medical Solutions	UNI	51	Developer of retractable syringes.	-5%	\$0.26
Prana Biotechnology	PBT	47	Developing drugs to treat CNS diseases such as Alzheimer's and Parkinson's.	-11%	\$0.31
Brain Resource Corp	BRC	45	Development and commercialisation of functional brain analysis techniques.	40%	\$0.49
Portland Orthopaedics	PLD	42	Developer, manufacturer and marketer of surgical hip and knee implants	-16%	\$0.27
Proteome Systems	PXL	42	Discovery and development of diagnostic and therapeutic products.	-24%	\$0.27
Optiscan Imaging	OIL	42	Manufacture of confocal microscopes for clinical diagnosis including endoscopes through alliance with Pentax.	-15%	\$0.40
Cytopia	CYT	40	Small molecule drug development company.	-15%	\$0.55
Benitec	BLT	40	R&D company focusing on gene silencing, specifically DNA delivered RNAi, technology.	-9%	\$0.14
Phylogica	PYC	39	Developing phylomer (protein fragment shapes) compound libraries for use in human therapeutics.	-21%	\$0.28
KarmelSonix	KSX	39	Respiratory and pulmonary devices company. Acquired technologies from PulmoSonix and Karmel Medical Acoustics Technologies.	45%	\$0.16
Neuren Pharmaceuticals	NEU	35	Developing neuroprotective therapeutics	-31%	\$0.27
Apollo Life Sciences	AOP	35	Developing portfolio of protein drugs to treat various disorders and diseases.	-30%	\$0.19
Cyclopharm	CYC	35	A nuclear medicine company that markets the Technegas lung imaging system	-31%	\$0.25
Halcygen	HGN	33	Developing an anti-fungal drug	-28%	\$0.43
Eastland Medical Systems	EMS	32	Developing retractable syringes and other surgical products.	32%	\$0.19
Sunshine Heart	SHC	31	Developing the C-Pulse heart assist device. The C-Pulse wraps around and compresses the aorta, increasing blood flow through the body.	6%	\$0.18
ITL	ITD	31	Develops and distributes medical devices such as safety equipment to prevent needle stick injuries and sterile preparation kits.	-33%	\$0.25
Occupational & Medical Innovations	OMI	29	Developing safety devices used in the healthcare industry, including safety syringes.	32%	\$0.78
Avantogen	ACU	28	A developer of various cancer therapeutics.	0%	\$0.05
Imugene	IMU	27	Developing animal products such as antibiotic alternatives used in the stock feed industry using a vaccine and gene therapy approach.	-14%	\$0.21
Bone Medical	BNE	27	Developing treatments for bone and joint degenerative diseases such as arthritis and osteoporosis.	17%	\$0.35
Giaconda	GIA	26	Developed novel (patented) combinations of registered drugs for the treatment of gastrointestinal disorders.	9%	\$0.36
Living Cell Technologies	LCT	26	Developing cell therapies for diabetes, haemophilia and Huntington's disease.	36%	\$0.17
PanBio	PBO	25	Develops and markets vector born infectious diseases diagnostic eg Dengue fever.	38%	\$0.40

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Qtr	Price 30/09/07
Stem Cell Sciences	STC	24	Contract research and development and sale of re-agents for use in stem cell therapy research	-26%	\$0.73
Advanced Ocular Systems	AOS	22	Under restructure. Currently suspended from trading.	0%	\$0.08
Medical Developments	MVP	22	Commercialising the Penthrax inhaler for temporary pain relief. Used widely in ambulances across Australia.	-34%	\$0.38
Labtech Systems	LBT	21	Developing the MicroStreak technology for the automation of microbiology laboratory processing	-12%	\$0.22
Compumedics	CMP	19	Develops, manufactures and markets sleep diagnostic and monitoring equipment.	-10%	\$0.14
Antisense Therapeutics	ANP	19	Developing antisense compounds to treat multiple sclerosis and acromegaly.	-5%	\$0.04
Biotron	BIT	18	Developing anti-viral therapies and cancer screening technologies.	-18%	\$0.21
Viralytics	VLA	18	Developing a cancer treatment based on the application of viruses (oncolytic virus technology).	-9%	\$0.08
Brainz	BZI	18	Develops non-invasive brain monitors for the detection of brain injury designed for use at the patient's bedside. A NZ company.	15%	\$0.30
Metabolic Pharmaceuticals	MBP	18	Developing a drug delivery technology.	-55%	\$0.06
Clovercorp	CLV	17	Development and production of omega-3 food additives from tuna oil.	-5%	\$0.10
BioProspect	BPO	16	Developing insecticides from naturally occurring molecules	-15%	\$0.04
Medic Vision	MVH	16	Marketing training software and hardware for surgeons (formerly Premier Bionics)	-40%	\$0.18
Clinical Cell Culture	CCE	16	Development of skin treatment products for use in burns and other skin damage. Lead product is CellSpray.	-3%	\$0.04
Tissue Therapies	TIS	15	Commercialising growth factors for spray-on skin product, other wound healing and in research and industrial cell growth applications.	-11%	\$0.49
Biosignal	BOS	14	Developing compounds that interrupt the colonisation of bacteria. Applications in the oil and gas industry and with contact lenses are being studied.	35%	\$0.14
Rockeby Biomed	RBV	13	Research, development and marketing of rapid testing technologies for infectious diseases in animals and humans.	-33%	\$0.02
Biopharmica	BPH	13	Managing cancer treatment and detection and bacterial DNA diagnostic projects. Portfolio investment approach.	-32%	\$0.15
Anadis	ANX	12	Specialises in R&D of bovine colostrum products for therapeutic use in animals and humans.	-25%	\$0.12
Visiomed Group	VSG	12	Marketing asthma spacer devices.	-14%	\$0.02
Atcor Medical	ACG	12	Markets the SphygmoCor device, a noninvasive technology that provides information regarding the functioning of the cardiovascular system	-8%	\$0.12
BioMD	BOD	12	Acquired an interest in a tissue engineering technology company, Celxcel.	0%	\$0.14
Dia-B Tech	DIA	12	Developing therapeutics and diagnostics in the area of diabetes.	-17%	\$0.08
PharmAust	PAA	11	Operates Epicem and PharmAust Manufacturing, which provide products and services to biotech and pharma companies. Has investment in Commonwealth Biotechnologies Currently suspended from trading.	-42%	\$0.04
Eiffel Technologies	EIF	11	Undertaking a strategic review of investment opportunities	6%	\$0.02

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Qtr	Price 30/09/07
USCOM	UCM	11	Marketing a non-invasive heart output function monitor.	-19%	\$0.29
Norwood Abbey	NAL	11	Developing needle-free and micro needle drug delivery technologies	-29%	\$0.05
Solbec Pharmaceuticals	SBP	11	Developing plant-based compounds for the treatment of melanomas and asbestos related lung cancers.	0%	\$0.04
NeuroDiscovery	NDL	11	Provides electrophysiology services to biotech and pharma, and is developing range of compounds for treating neuropathic pain.	0%	\$0.18
Biodiem	BDM	10	Developing a peptide drug for an eye disease	-23%	\$0.20
Virax Holdings	VHL	10	Bio-pharmaceutical R&D company developing a therapeutic and prophylactic vaccine for HIV.	-12%	\$0.10
Helicon Group*	HCG	10	Exploiting niche market opportunities for medical products in China and other Asian markets.	-7%	\$0.13
Somnomed	SOM	10	Commercialising an oral device for the treatment of sleep apnea and snoring.	11%	\$0.02
Chemeq	CMQ	8	Currently suspended from trading. Under administration.	0%	\$0.08
Healthlinx	HTX	8	Detecting novel functions of known and new protein and peptides for therapeutic purposes.	5%	\$0.02
Vita Life Sciences*	VSC	8	Development, manufacture and distribution of prescription and OTC medicines as well as complementary and alternative medicines, dietary supplements and health foods.	0%	\$0.17
Medical Therapies	MTY	8	Developing therapies to treat inflammatory diseases, using copper- and zinc- indomethacin	-16%	\$0.11
Stirling Products	STI	8	Commercialising a production animal growth promotant and meat finisher.	-9%	\$0.06
Genesis Research & Development Corp.	GEN	7	Developing RNAi based therapeutics. Interests in agricultural biotechnologies.	22%	\$0.25
Colltech	CAU	7	Has developed a novel technology for the extraction of collagen from sheepskins.	-35%	\$0.04
Cogstate	CGS	7	Marketing cognitive performance diagnostic products.	-30%	\$0.13
Resonance Health	RHT	6	Marketing the FerriScan technology, a non-invasive tool for measuring liver iron levels	6%	\$0.02
Cryosite	CTE	6	Building a business in the provision of services for storing umbilical cord blood through cryopreservation and ultracold technologies.	6%	\$0.17
Probiomics	PCC	6	A probiotics company that has launched a range of products to aid management of irritable bowel syndrome, diarrhoea and intestinal health.	-18%	\$0.03
Narhex Life Sciences	NLS	6	Developed a low cost protease inhibitor for treatment of HIV in Chinese market.	-22%	\$0.04
Select Vaccines	SLT	6	Development and commercialisation of infectious diseases diagnostics, vaccines and therapeutics for hepatitis-related diseases	-21%	\$0.02
Analytica	ALT	6	A medical devices company that has developed a retractable syringe.	0%	\$0.02
Ambri	ABI	5	Developing rapid diagnostic tests bases on mimicking natural biological sensing processes	-22%	\$0.03
Medigard	MGZ	5	Developed retractable syringe technology and other safety medical products.	-36%	\$0.08
Prima Biomed	PRR	5	Developing the CVac immunotherapy.	4%	\$0.03
Medec	MAA	5	Healthcare services and equipment, including treatment tables, and complementary medicines	-48%	\$0.06

Bioshares Index

Company	Code	Cap. \$m	Principal Activities	Change - Qtr	Price 30/09/07
NuSep	NSP	5	Manufacture and sale of protein separations technologies	-45%	\$0.22
Biolayer	BLS	4	Developer of a biological coatings technology that can applied to immunoassays, bio-separations, drug delivery and other medical devices.	-24%	\$0.06
Inctive	ICV	4	Development of compounds to treat cancers and auto-immune diseases.	-5%	\$0.10
RiTract	RTL	4	Developing a safety needle and needle sleeve. Currently suspended from trading.	0%	\$0.04

Capitalisation Total 7,815

* change in share price is from close of first day of listing

Listed Biotech Investment Funds

Company	Code	Cap. \$m	Principal Activities	Change - Qtr	Price 30/09/07
Circadian	CIR	49	Management and funding of R&D projects with Australian and NZ universities. Holds investments in Optiscan, Metabolic Pharmaceuticals, Antisense Therapeutics, Avexa and Vegenics.	-5%	\$1.23
Biotech Capital	BTC	30	A Pooled Development Fund investing in unlisted Australian biotech companies or in public biotechs, including Starpharma, Clinical Cell Culture, Phylogica and Stem Cell Sciences.	0%	\$0.35
Xceed Biotech	XBL	17	Holds a 64% stake in Polynovo, which is developing biodegradable polyurethane-based polymers. Also operates Boron Molecular, a chemistry services company.	0%	\$0.17
Genesis Biomedical	GBL	5	Venture capital company with an investment in a fertility diagnostic.	-15%	\$0.03

Capitalisation Total 96

Capitalisation Total - All Indexs 37,538

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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