

In this edition...

Many industrial and mining companies have recently experienced corrections to their stock prices, and a goodly number of biotech companies have suffered similar declines in their stock prices as well. But does the beginning of a falling away of hot money in mining mean the beginning of an upswing in biotech share prices? It maybe too early to say, but one leading indicator, biotech IPOs that get underway in the US, suggests that the US biotech market has some warmth to it.

And it can't all be that bad if an Australian biotech such a Peplin gets the interest of the largest life science VC investor in the US. MPM Capital is set to, with co-investors, take about a 20% stake in Peplin.

The editors

Companies covered: PEP, PBT

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Bioshares

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

US Biotech IPOs Back on the Agenda

Strategies & Issues

There's a mixed mood in the biotech sector in the US currently. The US biotech Index has been falling over most of this year, down 15% from its peak in February. However biotech IPOs in the US are on the increase, and with six companies having filed for IPO in this month, it brings the total to 14 currently on file awaiting listing. What are the implications for the Australian biotech sector?

In 2006 to date, there have been 14 biotech IPOs in the US. With seven months left in the year, this figure is almost certain to pass last year's number of 17 IPOs for the year. 2005 was a relatively quiet year for biotech IPOs, compared to 2004 when 29 biotechs made listings in the US. Of interest is the trend in the US of smaller biotechs coming to the public markets, a characteristic more common with Australian and other stock markets.

In 2004 (see table), the average capitalization of companies that listed in 2004 was US\$315 million (note this figure was calculated at market prices at the end of 2005). The average size of new listings in 2005 (again based on prices at the end of 2005) was US\$232 million. And for new listings in the US this year, the average biotech size has fallen even further (based on yesterday's prices) to US\$158 million.

US Biotech IPO History

Year	IPOs	Av. Funds Raised (US\$M)	Av. Cap (US\$M)
2004	29	57	315
2005	17	48	232
2006 (to date)	14	49	158

The average money raised through the IPO process has also fallen, although not as dramatically, from US\$57 million to US\$48 million last year and US\$49 million this year. This is still clearly well ahead of the average raised by Australian biotechs, with an average of \$11 million raised in 2005 by 14 biotechs.

Although the number of listings in the US is a promising leading indicator of sentiment towards the sector, IPO prices have had to be cut substantially in some cases to attract sufficient investor interest. This month has seen four listings in the US. **Novacea**, which

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Bioshares

Thredbo Biotech Summit
July 21- 22, 2006



<http://www.bioshares.com.au/thredbo2006.htm>

US Biotech IPOs 2006 (to date)

Company	Date of listing	Code	Funds raised (US\$M)	Current Cap. (US\$M)	Change in price since listing
Altus Pharmaceuticals	Jan-06	ALTU	105	432	30%
SGX Pharmaceutocals	Jan-06	SGXP	24	82	-9%
Valera Pharmaceuticals	Feb-06	VLRX	34	121	-10%
Cardica	Feb-06	CRDC	35	57	-41%
Iomai Corporation	Feb-06	IOMI	35	48	-42%
Acorda Therapeutics	Feb-06	ACOR	33	75	-36%
Alexza Pharmaceuticals	Mar-06	ALXA	42	192	6%
Targacept	Apr-06	TRGT	45	140	-19%
Vanda Pharmaceuticals	Apr-06	VNDA	57	195	-10%
Omrix Pharmaceuticals	Apr-06	OMRI	34	196	37%
Northstar Neuroscience	May-06	NSTR	106	330	-9%
Novacea	May-06	NOVC	40	109	4%
BioMimetic Therapeutics	May-06	BMTI	36	125	0%
Restore Medical	May-06	REST	64	121	-1%
Av.			49	159	-7%

is developing a range of oncology compounds including one Phase III trial for androgen independent prostate cancer, needed to halve its IPO price to US\$6.50 a share to get its IPO away. **BioMimetic Therapeutics** experienced a similar pressure, having to cut its IPO price by a third to US\$8 a share in order to make a successful listing on the Nasdaq market.

In Australia, there has only been the one listing in the biotech sector this year – by **Incitive Ltd** – which is surprising given the steady influx of listings in the sector over several years. As mentioned, last year there were 14 listings in Australia, in 2004 there were 25 listings and 13 in 2002. There are currently close to 130 listed life science companies on the ASX which could suggest a limit on the number of biotechs the listed sector can manage. Although it can be noted that in the first quarter of this year, nine of the top 10 performing biotechs in the sector had listed in the preceding two years.

There are a number of biotechs slated for listing over the coming 12 months. Possible listings include **PacMab**, **Ecobiotics**, **TGR Biosciences**, **CBio**, a therapeutics spin out from **Biosignal**, **Genera Biosystems**, a potential **CSL** spin out and **Conti-nence Control Systems International**.

Leading Indicator

The increasing IPO activity occurring in the US is an important leading indicator to monitor. We expect an upswing in sentiment towards the US biotech sector over the next 12 months and the recent increase in IPO activity is a positive development. The driver is always difficult, if not impossible, to predict, although the major oncology meeting, ASCO, is being held next month and is always an important event on the biotech calendar. What is almost certain is that when strong sentiment does return in the US, the Australian sector, which is more closely aligned to the US, should reflect US investment market conditions. It will come as a welcome relief to many biotechs that are experience considerable selling pressure on their stocks at the moment.

Bioshares Model Portfolio (26 May 2006)

Company	Price (current)	Price added to portfolio
Acrux	\$0.86	\$0.83
Agenix	\$0.18	\$0.22
Alchemia	\$1.23	\$0.67
Avexa	\$0.24	\$0.15
Biolayer	\$0.21	\$0.195
Bionomics	\$0.19	\$0.210
Biosignal	\$0.18	\$0.22
Cogstate	\$0.28	\$0.09
Cytopia	\$0.98	\$0.46
Evogenix	\$0.50	\$0.47
GroPep	\$1.59	\$1.43
Optiscan Imaging	\$0.55	\$0.35
Neuren Pharmaceuticals	\$0.51	\$0.70
Pharmaxis	\$2.00	\$1.90
Prima Biomed	\$0.09	\$0.09
Sirtex Medical	\$2.36	\$1.95

	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 (from 5 May '06)	-2.8%
Cumulative Gain	170.9%
Average Annual Gain	23.4%

Please note, there was in error in calculating the change in the portfolio last week. This has now been corrected.

Peplin Secures MPM Capital as Investor – Set to Raise \$40 Million

Key Events in Peplin's History

Date	Event/Announcement
2000	
22/09/2000	Lists on the ASX: Offer @ \$0.40 per share; Indic.Cap'n: \$21.4 million
5/12/2000	Pilot clinical study Interim results announced
2001	
20/02/2001	Appoints Dr Peter Welburn as Director of Clinical & Regulatory Affairs
5/11/2001	Offered \$3.2M R&D START Grant
30/11/2001	First Anti-Cancer Patent Granted in Australia
2002	
27/08/2002	Granted US Patent 6,432,452 "Anti-cancer compounds"
25/11/2002	Licensing agreement with Allergan Inc announced
2003	
10/10/2003	New CEO Michael Aldridge commences (announced 22/9/03)
2004	
10/02/2004	Michael Spooner joins the board
23/03/2004	INDs for PEP005 filed
29/06/2004	INDs for PEP005 re-filed with FDA
30/06/2004	Gary Pace joins the board; Brett Heading, Jim Aylward depart board
27/08/2004	Phase I trial commenced
21/09/2004	Granted US patent 6,787,161 "Anti-cancer compounds" (7/09/2004)
8/10/2004	Licensing agreement with Allergan Inc terminated, regains management of PEP005
25/10/2004	Phase I trial completed
24/12/2004	Company founder/inventor Jim Aylward departs
2005	
10/01/2005	Phase I trial results announced
16/03/2005	Phase II clinical trials commence
31/03/2005	Offered \$5.6m Government Grant
6/4/2005	Granted US Patent 6,844,013 "Methods of stimulating the immune system" (18/1/2005)
30/06/2005	Phase IIa AK trial - enrolment completed
30/08/2005	Wayne Goss to depart Peplin board
28/11/2005	Phase IIa AK trial results announced
8/12/2005	Phase IIa BCC trial - enrolment completed
2006	
28/02/2006	Second Phase IIa BCC trial - enrolment completed
1/05/2006	Phase IIa BCC trial results announced
9/05/2006	Phase IIa AK trial - additional data announced
22/05/2006	Phase II (Pilot) SCCIS clinical trial commences
24/05/2006	Plans \$40 million capital raising Search for new chairman; Jim Scopa to join board

Peplin (PEP: 77 cents) has boldly advanced into the front ranks of Australia's listed biotech companies following the announcement of a capital raising that has secured an investment led by notable US biotech investor **MPM Capital**. Peplin is seeking to raise approximately \$40 million, with \$26.6 million to come from MPM Capital and its co-investors, and the balance (\$13.9 million) through a rights issue. Both components are set at 71 cents a share. The rights issue is structured on a 2 for 13 pro-rata basis. Peplin represents the first investment by MPM Capital in a recently established US\$700 million fund. MPM Capital has more than \$2 billion under management, which is solely dedicated to the life sciences.

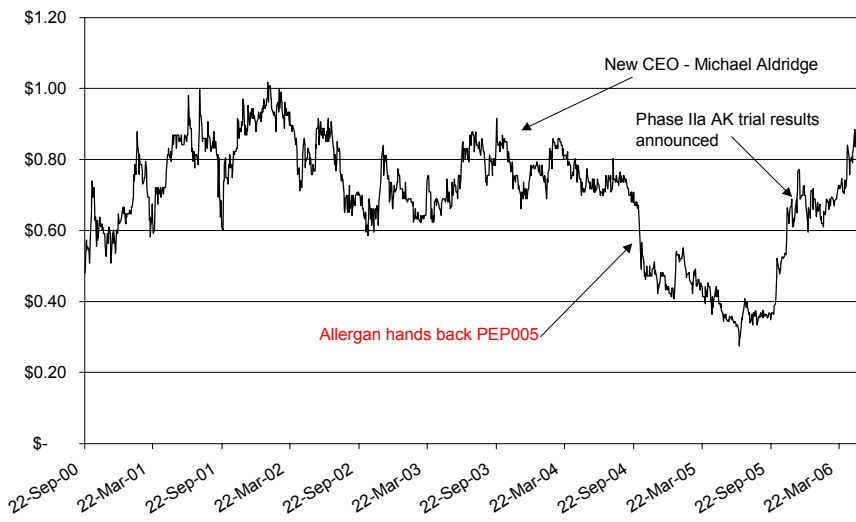
Peplin is a developer of a compound PEP005, which has demonstrated activity in several Phase II trials for the treatment of non-melanocytic skin cancers and has the potential to treat certain systemic cancers, such as leukemia. The product originates from the sap of the plant *Euphorbia peplus*.

With this capital raising, Peplin has clearly transitioned into a new and mature phase of development, and a new phase of value creation for shareholders. The company listed in September 2000, raising \$7 million, issuing 17.5 million shares at 40 cents. The company listed without venture capital backing and with a weak and indeterminate intellectual property position. Its IP position is now much stronger, with three patents granted in the USA. The company has also progressively transitioned and strengthened its management and board, having installed Michael Aldridge to replace Garry Redlich in October 2003. Currently, only one original board member remains, Cherrell Hirst, who is stepping down from the role of the chair. A new chair is being sought.

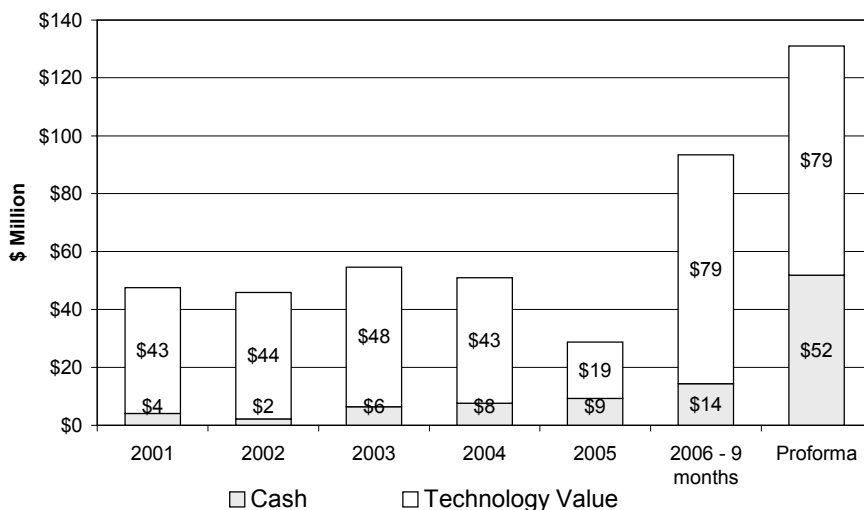
For the first four years or so of its listed history, Peplin's share price and enterprise or technology value has been reasonably stable, in a range from \$43-\$48 million. However, the company's share price col-

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Peplin Share Price History



Peplin Capitalisation and Cash History



Capitalisations are calculated for June 30 for 2001 to 2005, and for March Qtr 2006. "Proforma" assumes share price of 71 cents as per the placement and rights issue..

lapsed in October 2004 following the handing back of PEP005 by licensee Allergan, to which the compound had been licensed in November 2002. Peplin has worked assiduously since then to move PEP005 through a Phase I trial, dose escalation study and into four Phase II trials, covering a range of skin cancer indications. The company's hard work and success with these trials has not only garnered the attention of a major US biotech investor and co-investors, but convinced them that an investment was warranted.

Peplin will have on completion of this capital raising close to \$52 million in cash at hand. Since listing, Peplin will have raised \$87 million through seven funding rounds (including its IPO) and received grants of up to \$9 million. The company has stated that funds raised most recently are sufficient, together with existing cash resources, for the company to complete the current Phase II programs for actinic keratosis and non-melanocytic skin cancers, and fund a Phase I/II program for leukemia. It will, assuming these programs move forward successfully, need to raise additional funds. However, the most recent funding round would indicate that Peplin now has access to the very deep US biotech financing market, and the funding risk for this company has largely been overcome.

Technical risk has also been reduced with this stock, as the results to date, as well as the safety profile of PEP005 for topical applications, have largely been elucidated. However, as a human systemic drug (ie *in vivo*), PEP005's safety profile has not been determined and this represents a technical risk.

Bioshares Recommendations on PEP

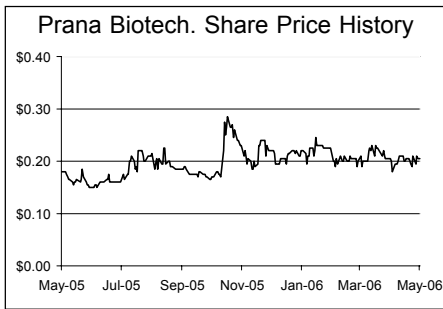
Edition	Date	Share Price	Recommendation	Comment extracts
5	27/04/2001	\$0.83	Sell	"In need of a more secure patent position"
12	18/12/2002	\$0.74	Spec. Buy Class B	"...potential validated in key deal"
40	19/09/2003	\$0.77	Spec. Buy Class B	"...on track..."
49	21/11/2003	\$0.84	Spec. Buy Class A	
57	6/02/2004	\$0.78	Spec. Buy Class A	" to enter clinic..."
61	5/03/2004	\$0.91	Spec. Buy Class A	"Aldara approval a positive"
81	30/07/2004	\$0.82	Spec. Buy Class A	"expanding into leukemia"
91S	11/10/2004	\$0.53	Spec. Hold Class B; look for entry points below 50 cents	"Allergan hands back PEP005"; " Quick response a sign the company ably managed"
104	28/01/2005	\$0.53	Spec. Buy Class A	"Positive Phase I data puts Peplin back on track"
125	1/07/2005	\$0.31	Spec. Buy Class A	"Additional trial"
147	2/12/2005	\$0.78	Spec. Buy Class A	"Very positive Phase II data for AK"; "Significant product differentiation from Aldara"
165	16/5/06	No rec. supplied, Multi-company review		BCC results..."Exceeded the company's expectations"

Summary

With strong cash resources at hand, we expect the company to enhance and add to its management skills. It has already announced the appointment of an interim Chief Medical Officer, Dr Gary Patou, who is based in San Francisco, and is an executive partner at MPM Capital. Should the biotech sector experience a resurgence of interest by highly mobile investor groups in Australia, Peplin is likely to be one of the earlier quality stocks to be picked up in a biotech sector re-bounce.

Bioshares recommendation: Speculative Buy Class A

Stock Update



Prana Biotechnology (PBT: 20.5 cents) Sets PBT-2 Phase IIa for Dec Qtr
 Prana Biotechnology has released plans for a Phase IIa trial of PBT-2, a compound being evaluated for the treatment of patients with Alzheimer’s disease. The Phase II trial will enrol 80 patients, to be recruited and evaluated in Sweden. The trial effectively starts in the fourth quarter of this year, when the first patients will be dosed.

Prana is capitalised at \$26 million and held cash assets of \$13.5 million at March 31, 2006, implying a value of \$12.5 million to its metal- protein attenuating compound (MPAC) IP estate and clinical data assets. This could be regarded as cheap, but other factors have been at play in discounting the stock, including loss of confidence in the company following the inability of the company to solve manufacturing-related problems for its initial lead compound PBT-I

While it is welcome to see Prana move forward and communicate the details of its Phase II clinical trial for PBT-2, the company must still attend to the important task of rebuilding finances to support this program and other programs that may be in limbo. Its current cash reserves may be sufficient for supporting the bulk of this PBT-2 trial, but not much more. Furthermore, the commencement of the company’s Phase II trial is several months away, which may give investors with an interest in companies that focus on diseases of aging and neuro-degeneration some time out of this stock before news flow momentum begins to potentially impact on the stock. Therefore we recommend that investors wait until the company clarifies its financial position and/or at least wait until the dosing of the first patient in the Phase II trial before investing.

Bioshares recommendation: **Speculative Hold Class B**

Prana Biotech - PBT Phase II Trial

Code / Name of Trial	PBT2
Phase	Phase II
Study Timing	
Expected (actual) qtr first patient dosed	Q4 2006
Expected (actual) qtr last patient dosed	Q4 2007
Expected (actual) qtr results announced	End-2007
Indication	
Disease or Medical Condition	Alzheimer's disease
Indication	Mechanistic treatment of Alzheimer's Disease
Study Design	
Dosage levels (by number of pts, if applicable)	placebo (20pts), 50mg (20pts), 250mg (20pts), 500mg (20pts),
Route of administration	Oral
Frequency of administration	Daily
Duration of treatment	Three months
Blinding Status	Double-blind; placebo controlled
Trial Locations	Multiple sites in Sweden
Total Planned Patient Enrolment	80
Pts. Enrolled to date	0
Primary Endpoints	Safety and tolerability
Secondary Endpoints	Neurocognitive and behavioural measures
Biomarkers	Measures of CSF and peripheral a-beta40/42; multiple forms of tau, metal levels etc
Regulatory Status	
IND Status	No IND filed

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

Corporate Subscribers: Phylogica, Neuren Pharmaceuticals, Pharmaxis, NeuroDiscovery, Prima Biomed, Biotech Capital, Cygenics, Psivida, Cytopia, Biodiem, Peptech, Starpharma Holdings, Cogstate, Xceed Biotechnology, Healthlinx, Incitive

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