ISSN 1443-850X

# Biosshares

4 May 2007
Edition 214

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

***In this edition...***
*It may be time to taken another look at Proteome Systems. After a rocky beginning, the company now looks to be on track to commercialise its diagnostic biomarker technology and is delivering on its Eukarion acquisition made in 2004, which is now set to generate a profitable return.*
*Acrux continues to surge ahead and remains one of the standout picks in the sector at present. Biota Holdings is also attracting strong investor attention and is cleaning up its royalty obligations ahead of a potential future settlement with GSK.*
*And big chunks of international dollars continue to flow into Australian bitoechs, filling a void that local institutions have been slow to fill.*

***The editors***

***Companies covered: ACR, BTA, PGL, PXL***

| | 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) | 17.3% |
| **Cumulative Gain** | **227%** |
| **Average Annual Gain** | **26.8%** |

*Bioshares* is published by Blake Industry & Market Analysis Pty Ltd. The company also provides market and company analysis of the Australian pharmaceutical and biotech industries for local and international funds management institutions, venture capital funds and other related industry groups. For further details contact David Blake (see details below).

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

Individual Subscriptions (48 issues/year)
**$320** (Inc.GST)
Edition Number 214 (4 May 2007)
ISSN 1443-850X



## Proteome Systems Effects Turnaround and Signs Deal With Minerva Healthcare

Proteome Systems is to be credited with a successful turnaround of its business over the last two years and it's now time to take another look at this stock.

The company listed at an excessive valuation ($100 million pre-money) in September 2004 and with an equally excessive commercial ambition to build a global diagnostic and instrumentation business. It was a risky approach, requiring continued high investment inflow in a field (proteomics) that had yet to be firmly established. And to be fair, at the time, it was anticipated proteomics would become the next major biotech drive after the sequencing of the human genome, although this never occurred.

Faced with an unsustainable burn rate and a falling level of investor confidence in the company's programs, a new CEO, Stephen Porges, was brought in as a company doctor in April 2005 to aggressively reshape the business.

That turnaround can be considered to have been effected. Five of the six founders have left the company, it has existed its instrumentation business (last week) which was creating a significant drain on the company's cash resources, and the company is now progressing some potentially valuable intellectual property (IP) assets. This week the reigns were handed over to a new CEO, Jenny Harry, the one remaining founder of the company.

Proteome Systems' expertise in proteomics – the separation, identification and characterization of proteins – has produced protein diagnostic candidates that form part of the company's two lead programs; a diagnostic for active tuberculosis (Cellestis has developed a test to detect latent and active TB) and a new prostate cancer diagnostic.

Diagnostic company valuations can vary widely. They can be attributed surprisingly high value by the market, such as Cellestis ($330 million) and Fermiscan ($291 million), which is developing a breast cancer diagnostic test, or they can be valued at very little, as is the case with Healthlinx ($6 million), which is developing an ovarian cancer diagnostic. Proteome Systems sits somewhere in the middle as investors decide upon the future value that can potentially be derived from its biomarker programs.

**TB diagnostic program**
Proteome Systems has isolated 72 different proteins found in patients with active tuberculosis infection. It has produced six antibodies to date specific to some of these proteins and last year achieved proof of concept with one of its protein markers. The test is being optimized and a clinical study is expected to be conducted this year. The company is currently is partnering discussions with this program with a high expectation that a decision will be reached shortly.

Existing tests for active TB are poor because of the time taken to complete a test (four to eight weeks for cell culture) or low sensitivity (with microscopy).

If this program can be successfully developed, it will help validate the company's proteomics platform for finding protein biomarkers in the body and will allow the company to exploit other infectious disease, diagnostic applications.

**Prostate cancer diagnostic program**

The company is developing a prostate cancer diagnostic through a partnership with Egenix Inc. Combining a Human Carcinogen Antigen (not limited to prostate cancer cells) that has been patented by Egenix, with a glycoprotein discovered by Proteome Systems that contains HCA and found only in semen, the companies are seeking to develop a prostate cancer test that is more accurate than the PSA in current use.

**Other Assets – Eukarion compounds**

Whilst the market makes up its mind on the value of the company's diagnostic assets, Proteome Systems can be acknowledged for generating recognizable value from its Eukarion acquisition made in December 2004.

The company was acquired for around $1 million and this week Proteome Systems announced the licensing of the topical Eukarion compounds – the 100 series – which leaves the 200 and 400 series of compounds with Proteome Systems for further developing or more likely out-licensing.

The Eukarion compounds are potential antioxidant drugs and topical skin ingredients. One of the topical compounds (EUK-134) has been licensed to Atrium as an active anti-aging ingredient in the Estee Lauder Daywear Plus line of skin care products. It is generating royalties of around $100,000 a year and can potentially increase to $1 million a year in the future.

**Proteome signs Minerva deal**

This week Proteome Systems granted an option to license its topical series of the Eukarion compounds to a newly formed company, Minerva Healthcare in the US, subject to completion of initial capital raising. The terms of the deal deliver Proteome Systems a handsome return on its initial investment plus the potential for future upside.

Proteome Systems will receive US$4 million up front, a 12% royalty stream from any future sales from these compounds, and a 10% equity stake in the company, worth about US$6 million at present. It's a nice deal for Proteome Systems, which will initially have two board positions with Minerva Healthcare.

**About Minerva Healthcare**

Minerva Healthcare is a new venture that will focus on treating skin disorders and wounds. It was founded by three highly regarded and experienced biotech entrepreneurs and executives (Charlie Hsiao, Nigel Fleming and Barry Edwards) who collectively founded generic drug maker Ivax Pharmaceuticals (sold for US$7.4 billion to Teva Pharmaceutical Industries last year), Impax Laboratories (current market capitalization of around US$600 million) and Athena Diagnostics (sold last for US$283 million).

Minerva is acquiring a range of dermatological treatment products and devices. The company is building an in-house sales force and is aiming to build significant revenue stream within three years, with the first products expected to reach the market within 18 months.

This deal, if it is completed, will represent one of the most tangible examples of value creation within Proteome Systems that aside from the upfront and equity stake, may see Proteome Systems receiving a royalty revenue stream within two years.

**Other Eukarion compounds**

The oral (400 series) and injectable (200 series) Eukarion compounds will remain with Proteome Systems. It's unlikely Proteome Systems will develop these programs independently in-house. In conjunction with the Center for Medical Countermeasures Against Radiation, the company is investigating the properties of the 200 and 400 series compounds in preventing internal radiation damage. These programs have been funded by the National Institutes of Health in the US.

**Risks**

The deal with Minerva Healthcare is contingent on that company completing a capital raising. Proteome Systems' burn rate remains high, at around $8 million a year although should be reduced further when other partnering deals are signed. Its two diagnostic tests discussed here need to be finalized and tested in a significantly larger patient pool before approval and acceptance of these tests can be gained.

**Summary**

Proteome Systems has reached a point where recognizable value is being created for its shareholders. Following is earlier turbulent years, the company has a commercialization strategy that is proceeding with realistic objectives. The company is creating and developing intellectual property assets from its core proteomics skills base and is seeking to out-license or partner those programs at appropriate points of development. These programs, if successful, have the potential to generate significant returns for the company. And it is commercializing its Eukarion compounds in what can now be judged as a very fruitful acquisition.

Proteome Systems had $5.0 million in cash at the end of March (with a furthr US$4 million expected from Minerva) and its burn rate is currently $700,000 a month although should be reduced as existing programs are partnered. The company is capitalized at $47 million and employs 44 staff, including seven in the US. And with a potential TB diagnostic partnering deal that may be secured shortly, it's a good time to consider entry into this stock. We have upgraded our recommendation on this stock.

*Bioshares* recommendation: **Speculative Buy Class B**

Bioshares

## International Institutional Buying of Australian Biotechs Continues

Australian biotechs continue to provide attractive investments for international institutional investors. The trend started at the end of 2005 when Pharmaxis raised $87 million through a follow-on capital raising, with half of that money coming from US funds. It was followed last year with Peplin raising $40 million with a cornerstone US venture capital group taking up over half of that investment, and Clinuvel Pharmaceuticals raising $35 million las t year, mainly from European funds.

More recently, Avexa has raised $79.5 million (through a private placement and rights issue) with $15 million invested by US funds. Last week, Clinuvel raised an additional $26 million from European funds in a private placement. And this week, Progen Pharmaceuticals announced that it would raise a net $68.3 million through a $40 million placement to US funds (and other investors) and a $34 million entitlement offer.

The Progen raising was conducted at a 18% discount to its five day weighted average share price, at $5.74 a share, which is a reasonable price given the shares had been trading well under $4 until December last year. With biotech companies regularly conducting capital raisings at discounts to market prices to fund their development activities, it confirms the strategy of taking profits regularly in this sector, particularly after the release of positive announcements. We believe much of the short term gains have been made with this stock and place a **Speculative Hold Class A** on the stock.

Bioshares

## Acrux Continues to Impress

Acrux (ACR: $1.31) continues to surge ahead with the development of its transdermal pharmaceuticals. In the most recent development, it has completed the enrolment of a 40 person Phase II study in the US with its testosterone lotion for men. The aim for the trial is to measure absorption of the drug into the blood stream with no efficacy outcomes are required to get the product approved.

The market for this product is currently worth US$600 million a year. The Acrux product potentially has a significant advantage in required a much lower surface area for absorption of the drug, making it more appealing to end users. A Phase III trial in up to 200 people is expected to begin next year. The company has indicated that interest has been shown by potential partners, which for this company, may mean that a partnering deal may surface if the Phase II results, due to be released in July, are positive.

*Bioshares* recommendation: **Speculative Buy Class A**

Bioshares

## Biota Holdings buys out CSIRO Relenza Royalty

As Biota's (BTA: $1.84) revenue stream starts to escalate, the company has decided to buy out the CSIRO royalty rights to Relenza. Biota receives 7% royalties from GlaxoSmithKline from Relenza sales (10% from sales in Australasia) and was obliged to pay the CSIRO and the Victorian College of Pharmacy 1% of the Relenza sales. Biota will still be required to pay the VCP a proportion of its royalty stream (0.25% of Relenza sales). The CSIRO will receive an undisclosed cash payment and $2 million in Biota shares.

The arrangement is beneficial to both parties, and will assist in the facilitation of any potential settlement with GSK, where a settlement is unlikely to be a straight cash payment.

*Bioshares* recommendation: **Buy**

Bioshares

**Bioshares Model Portfolio ( 4 May 2007)**

| Company | Price (current) | Price added to portfolio |
|---|---|---|
| Acrux | $1.31 | $0.83 |
| Alchemia | $1.15 | $0.67 |
| Biodiem | $0.34 | $0.29 |
| Biota Holdings | $1.84 | $1.55 |
| Cytopia | $0.70 | $0.46 |
| Chemgenex Pharma. | $0.86 | $0.38 |
| Optiscan Imaging | $0.46 | $0.35 |
| Neuren Pharmaceuticals | $0.45 | $0.70 |
| Peplin | $0.81 | $0.83 |
| Peptech | $1.92 | $1.31 |
| Phylogica | $0.40 | $0.42 |
| Probiotec | $0.95 | $1.12 |
| Sunshine Heart | $0.16 | $0.19 |
| Tissue Therapies | $0.49 | $0.58 |

## 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, Cytopia, Biodiem, Peptech, Starpharma Holdings, Cogstate, Xceed Biotechnology, Incitive, Optiscan Imaging, Bionomics, ChemGenex Pharmaceuticals, Medical Therapies, Circadian Technologies, Biota Holdings



## Subscription Rates (inc. GST)

48 issues per year (electronic distribution): **$320**

| For multiple email distributions within the same business cost centre, our pricing structure is as follows: | | |
|---|---|---|
| | $520 | 2-3 email addresses |
| | $620 | 4-5 email addresses |
| | $750 | 6-10 email addresses |

To subscribe, post/fax this subscription form to:

**Bioshares**
**PO Box 193 Richmond VIC 3121**
**Fax: 61 3 9671 3633**

I enclose a cheque for **$** made payable to **Blake Industry & Market Analysis Pty Ltd**, or

Please charge my credit card **$** MasterCard ☐ Visa ☐

Card Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Signature ____________________ Expiry date ____________

### Subscriber details

Name ____________________

Organisation ____________________

Ph ( ) ____________________

Emails ____________________