

**In this edition...**

This week, we look at a promising biotech with its eyes set on becoming a specialty pharmaceutical group.

We also look at one biotech that has decided to restructure its assets. Prima Biomed has sold its Arthron business so that it can focus on its oncology projects, in particular its cancer vaccine program, which is currently undergoing a Phase II trial in women with ovarian cancer.

And we update readers on Peplin, which is progressing well with its skin cancers compound and can expect a busy six months ahead.

**Companies covered:**  
**AVX, PEP, PRR**

	Bioshares Portfolio
Year 1	21.2%
Year 2	-9.4%
Year 3	70.0%
Year 4	-16.3%
Year 5 (to date)	47.3%
<b>Cumulative Gain</b>	<b>131.0%</b>
<b>Average Annual Gain</b>	<b>22.6%</b>

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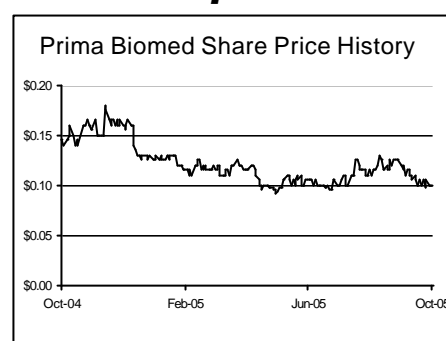
# Bioshares

7 October 2005  
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*Delivering independent investment research to investors on Australian biotech, pharma and healthcare companies.*

## Prima Biomed Streamlines to Focus on Cancer Therapeutics

It is common, and often necessary, for biotech companies, to adapt or change the business models they follow. This is the task that Prima Biomed (PRR: 9 cents) effectively set itself in 2004. With the announcement of the sale of its anti-inflammatory (Arthron) assets this week to privately held Canadian company, **Trillium Therapeutics**, it has signed off on a major part of its strategy re-focus as an oncology company.



Prima is following in the path of several other local biotechs. **Cytopia** (CYT) stands as a good example of what Prima Biomed, under the leadership of CEO Marcus Clark and Executive Chairman Eugene Kopp, is trying to achieve.

Cytopia, formerly known as Medica Holdings, was set up as an active investor in three companies, Cytopia, Xenome and Alchemia. It has divested its stake in Xenome, retains a 14% stake in Alchemia, which is now worth \$18 million, and has changed the parent name from Medica Holdings to Cytopia, and bought out minority interests in the Cytopia subsidiary. The transformation of Cytopia, if dated from the time a change agent was appointed to the board (current Executive Chairman Bob Watson) in June 2003 to the sale of its Xenome stake in November 2004, was 15 months. Cytopia can now be clearly seen by investors as a well-funded company focused on developing drugs that target kinase (protein) targets to treat cancer, cardiovascular and inflammatory diseases.

Similarly Prima Biomed's re-focusing strategy could be said to commence from the

appointment of Eugene Kopp to the board in June 2004 (he became Executive Chairman in September 2004). In the space of 16 months several key advances have been made.

### Restructured ownership of subsidiaries

Prima Biomed now owns 100% of Cancer Vac, Oncomab, Panvax and Arthron (of which the assets have now been sold) following the swapping of minority interests for shares in Prima. There remain just a very small number of shares and options in Arthron, and options in Panvax, that have not been swapped.

**Benefit:** The consolidation of these assets will enable Prima to more efficiently and cost effectively manage these assets.

### Board appointments

The Prima board has been strengthened. It now comprises Eugene Kopp, Marcus Clark, George Mihaly, Dr John Sime and Richard Hammel, with Professor Mark Hogarth, Bryan Frost and Richard Revelins resigning from the board.

*Continued over*

**Benefit:** The Prima board now has impressive biotech and pharma business credentials. Mihaly formerly ran the Australian operations of the CRO, Kendle International. Sime was Managing Director of **Beecham** Australia & New Zealand and headed the UK biotech industry association for six years. He is also currently a director of **Mayne Ltd.** Hammel had held positions with **Connetics Corporation**, **Matrix Pharmaceuticals** and at **Glaxo Inc**, and is based in the US. CEO Clark has accumulated 23 years in the biotech and pharma sector, including management of the Australian operations of **Medisense Inc.** Kopp's background is in investment banking. This is an attractive board because of the depth of biotech and pharma industry experience evident and the potential this has for contributing to solid commercial strategies and decisions.

### The Trillium Deal

Prima has sold its anti-inflammatory assets to Trillium Therapeutics for an upfront payment of \$760,000 and 7% of the issued shares of Trillium. It stands to increase this stake to 19% as and when certain milestones are met. These milestones relate to the progress made by collaborative partners **ZymoGenetics** and **AstraZeneca**, which are researching biological (protein) inhibitors and small molecule inhibitors of the Fc-gamma receptor respectively.

**Benefit:** Getting the Arthron assets off Prima's books adds cash to Prima's bank balance and frees up \$600,000 in commitments to the now divested Arthron program, generating \$1.4 million that can be applied to Prima's Phase II cancer therapy program. Secondly, Prima may, in several years time, be able to crystallise a return on this investment if Trillium executes a trade sale at a significant multiple of its current value (which is not disclosed).

**Analysis:** The value of this deal is on the low side in up-front terms. This reflects the pre-clinical stage of the assets, but more likely relates to the short life left on some of the patents that relate to these assets. For example, patents covering nucleic acids (DNA) encoding the native Fc receptor expire in 2006 in many jurisdictions. However, other patent families, such as the transgenic mouse screening tool family, the 3-D structure of the Fc-gamma receptor family, the several small molecule inhibitors families, offer, or potentially offer much longer patent life. Several of these families included granted US patents.

Another factor is that the arrangement with AstraZeneca and ZymoGenetics are structured as option agreements, and not as fixed deals. A positive aspect to the deal is that Trillium has the capacity to fund aspects of the Fc-gamma program, and has a healthy four years of cash at its disposal.

### Observation

Prima Biomed has undergone a solid transformation over the last twelve months, and a much easier to understand investment proposition is now emerging.

However, a point with this stock to bear in mind is that the company's lead technology is an immuno-therapy, which as a

class, continues to be the beneficiary of continued research insight and refinement without commercial success at this stage.

Several immuno-therapy products in development worth noting include **Dendreon's** Provenge for prostate cancer, and **Biomira's** Liposome Vaccine (L-BLP25) which recently demonstrated a 4.4 month median survival in a Phase II trial involving lung cancer patients. Ongoing success with therapies such as these will bode well for Prima's MUC1 vaccine.

### Summary

Prima Biomed is capitalised at \$16.4 million and has estimated cash at hand of \$7 million. This implies a value to Prima's assets under development and investment assets of \$9-\$10 million. This company is now solidly positioned and is an attractive investment opportunity to consider.

### Events to monitor:

- Interim results of Phase II ovarian cancer trial - Nov/Dec 2005
- Out-license of non-oncology applications of DCtag technology
- Selection of antibodies for crypto target to progress into animal studies

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

**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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