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Biosares

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

In this edition...
This week Bioshares takes a look at two Melbourne biotechs that have undergone transformational change over the last 2 years.

Metabolic Pharmaceuticals is well on the way to finsishing the repeat of a Phase II trial of its obesity compound AOD9604. Starpharma's proposed acquisition of Dendritic Nanotechnologies looks to be a nice completion to a set of reforms and changes made to the company, starting from the day it decided give up its PDF investor status in March 2004.
The message from both of these companies is that, with time, effort and patience, difficult business challenges can be addressed.

The editors
Companies covered: MBP, SPL

	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)	-9.8%
Cumulative Gain	**151%**
Average Annual Gain	**22.3%**

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).

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Extract from Bioshares

The Rationale Behind Starpharma's Acquisition of DNT

In last week's edition we commented briefly on Starpharma's decision to buy out the other shareholders of **Dendritic Nanotechnologies (DNT)**, a company in which it has held a 33% stake. This week we examine the proposed transaction in some more detail.

Starpharma
Starpharma (SPL: $0.53) is a Melbourne-based developer of pharmaceutical applications of a large molecule chemistry scaffold technology known as dendrimers. Dendrimers are branched structures that are constructed around a core unit. Once one layer of chemical units that are the basic building block are laid down, then successive layers, or 'generations' can be added as desired. This concept allows for very precise structures to be made to order.

Starpharma was founded as a spin-out of the **Biomolecular Research Institute** (BRI) in 1996 and listed on the ASX in 2000. Starpharma has developed the first pharmaceutical application of dendrimers, Vivagel, which is a 'four-generations' polylysine dendrimer. Vivagel is being developed as topical application for the prevention of HIV and genital herpes (HSV2). The Vivagel program is the recipient of US$26 million in funding from the US **National Institutes of Health** (NIH).

Attached on the surface of the Vivagel dendrimers are 32 units of another chemical (napthalene disulfonate) that bind to a protein (gp120) on the HIV virus, thus inhibiting the virus from binding and infiltrating certain key immune system cells.

Dendritic Nanotechnologies
Dendritic Nanotechnologies is a privately owned US based dendrimer technologies company that was founded by Starpharma and Dr Donald Tomalia in August 2001. DNT was first established principally as a commercial supplier of dendrimers for research and development purposes and to generate income from the licensing of proprietary dendrimer architectures.

Deal value
The deal values DNT at approximately $14 million. The number of Starpharma shares on issue will increase from around 147.7 million to 168.7 million.

What is the rationale for this acquisition?
One of the problems of being a minority shareholder is the lack of control over a company's management and direction. By bringing Starpharma and DNT under the one management structure, the companies' combined resources can be more efficiently managed. A second rationale is that a number of investment attributes that were embedded separately in each company, yet linked through partnership arrangements, can be more clearly identified and evaluated in a combined entity.

These investment attributes include a company with revenue emanating from the sale of research chemicals and royalty income, which is currently in the order of $1.25 million per annum, two pharmaceutical and diagnostic products in development and a comprehensive intellectual property estate.

Cont'd over

The consolidation of the IP assets may well be the most important aspect of the transaction because it may enable certain North American investors to approach the stock with a greater degree of interest, comfort and certainty.

In January 2005, **The Dow Chemical Company,** assigned all its dendrimer IP to DNT, including 41 patent families, in exchange for an equity holding. [Dow's holding at the time of the acquisition was 30%.]

Together with the 41 patent families contributed from Dow, 19 patent families are contributed by Starpharma and at least two by DNT to the combined entity. Although there are a reasonable number of dendrimer application patents granted to other parties, the newly formed Starpharma patent estate represents the largest with the most potential for blocking the activities of other parties wishing to practise other uses.

Another benefit for Starpharma includes control over a subsidiary based in the USA. US investors have built a 19% stake in Starpharma, including an 8.6% stake held by The Dow Chemical Company. The Dow stake may well prove beneficial to Starpharma as it seeks to increase the proportion of the firm held by investors outside Australia.

The US presence has a practical benefit, as DNT employs several business development personnel. Without adding much in the way of overheads, Starpharma can modestly increase its US-based business development activities, but significantly expand its capacity to address business development requirements for the combined entities' pharmaceutical operations.

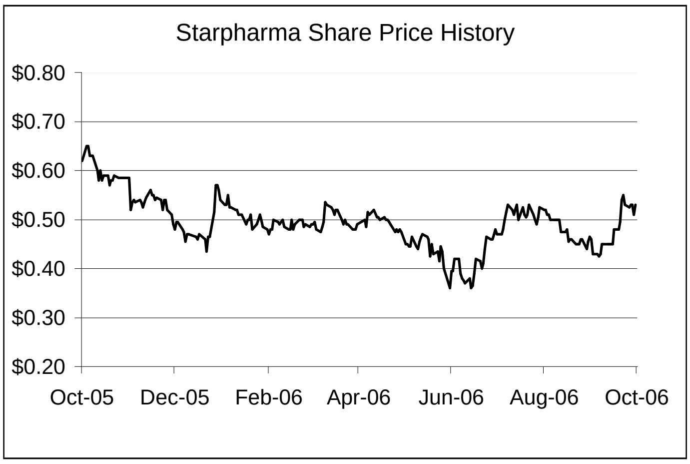
Another benefit of the deal is that Starpharma has now built considerable expertise as a pioneer of the pharmaceutical applications of dendrimers, and has established infrastructure, such as analytical chemistry services to support this. DNT's diagnostic dendrimer product could in theory benefit from the expertise developed in Starpharma's development work.

Assessment

The Starpharma/DNT transaction follows on from several restructuring activities undertaken by Starpharma since the company decided to rescind its Pooled Development Fund status in March 2004. Although this meant the company and its shareholders would forgo certain tax concessions, the decision signified its intention to move from being a manager of earlier stage projects to mature into a more focused developer of pharmaceuticals.

Since that date the company has transitioned its management with Dr Jackie Fairley taking over the CEO role from Dr John Raff in July 2006, although Dr Fairley had been appointed as Starpharma's Chief Operating Officer in March 2005.

In October 2005, Starpharma gained full ownership of key IP from the BRI, including three patent families. The BRI exchanged its 25% entitlement to the gross income that Starpharma might receive from any commercially successful products for 7 million shares in Starpharma.



It is not unusual for biotech companies to adapt or change their business more than once in a life spanning a decade or more, and Starpharma is no exception. What makes Starpharma unusual is that is has stuck with its original technology, achieving a measure of success with very substantial funding for Vivagel clinical studies from the NIH. Perhaps the main criticism that can be levelled at Starpharma is that its platform technology has not yielded more products suitable for clinical development. For example, no cancer therapeutics have been brought forward from the discovery stage.

In hindsight, a number of pharmaceutical products may not have been developed for reasons relating to cost of manufacture and DNT's next generation Priostar dendrimers that offer a much lower cost and ease of manufacture were only released in May 2005. However, the more basic reason for not developing a more comprehensive advanced portfolio is because of limited financial resources, with Starpharma's managers choosing one product (Vivagel) over others as being a more likely prospect for clinical and commercial success.

Summary

Assuming the DNT acquisition is completed, Starpharma looks set to begin a new and very positive phase as a biotech company. One key feature worth emphasising is that with the company now holding a comprehensive IP estate, its attractiveness as an acquisition target to pharmaceutical companies will have increased markedly. This is because large pharmaceutical companies place great value on being able to acquire assets that demonstrate clear freedom to operate, barriers to entry and no ongoing royalty obligations to other parties.

Starpharma is capitalised at $89 million, based on shares issued in consideration for the acquisition of DNT. As of June 30, Starpharma held $14.3 million in cash

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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