



# Biotech Daily

## Marc Sinatra's Bioguide

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### ALCHEMIA – ALL ABOARD TO \$1.60+

**Overview:** When Alchemia arrived on the ASX it had two primary assets, its synthetic heparin program and its Vast drug design platform. In 2006, Alchemia acquired Meditech Research, adding the Hyact (from hyaluronic acid) drug delivery portfolio.

With its heparin product close to market, outstanding phase II results from Meditech's former lead product and two quality platform technologies, Alchemia should be one of the most exciting companies around. Instead its share price, at 50 cents, is languishing near all time lows.

How does Alchemia prick investor interest? What do they need to do to be identified as company likely to generate exciting returns?

**Financials:** Market cap: \$80 million; cash: \$20.3 million; last quarter cash burn: \$1.7 million.

**Directors:** Non-executive chairman, Mel Bridges; chief executive officer, Dr Pete Smith; non-executive directors, Prof Peter Andrews, Dr Julian Clark, Dr Tracie Ramsdale, Nerolie Withnall.

The make-up of the board appears more dependent on Alchemia's past than it does on its future and, consequently, desirable areas of expertise are missing (see below).

#### **Product Development Programs:**

1) Fondaparinux - A generic of Glaxosmithkline's Arixtra, which is used for the prevention and treatment of deep vein thrombosis. Alchemia will receive a minimum 50 percent of the profit on sales by Dr Reddy's Laboratories, their manufacturing and North American marketing partner. FDA approval for fondaparinux is expected in late 2008.

2) Hyact drug delivery technology - Works on the premise that many cancers express hyaluronic acid receptors and that existing chemotherapeutics entrapped in hyaluronic acid will target these cancers, leading to better safety and effectiveness.

(i) HA-Irinotecan (formerly, Hycamp) – Combines HA and Pfizer's Camptosar (irinotecan). It has been shown to significantly increase progression free survival in metastatic colorectal cancer patients compared to irinotecan alone. Only one further trial is required before the FDA will accept a new drug application. This trial should begin before 2009 and be completed in three years.

(ii) Hydox and Hyfive are combinations of HA with doxorubicin and 5-fluorouracil, respectively. Both have successfully completed phase I/IIa studies. Development plans for these products are being reviewed.

3) Vast drug development platform - versatile assembly on a sugar template (Vast) new chemical entities are created through the addition of drug-like binding groups to a carbohydrate spine in a defined manner. The performance of initial entities can be used to develop superior ones. VAST is the subject of collaborations with Euroscreen, where leads for two G-protein-coupled receptors have been identified, and with Tetraq, where hits against various opioid receptors have been obtained.

4) Novel antibiotic program - Development of antibiotics that act via a unique mechanism. Results of further preclinical testing are due in the current quarter.

**Significant Product Markets:** The heparin market was \$US4.2 billion dollars in 2006. Various drugs crowd this market, but it is dominated by the low molecular weight heparin, Lovenox (enoxaparin). It had sales of \$US3.0 billion in 2006. Sales of Arixtra were \$US190 million in 2007. Several new drugs in development have the advantage of being oral. These include the highly anticipated Xarelto (rivaroxaban) from Johnson & Johnson and Bayer, which has outperformed Lovenox in comparative trials. US filing for Xarelto is expected in 2008, while EU filing occurred in 2007.

The colorectal cancer drugs market was \$US7.0 billion in 2006. Irinotecan is one of seven approved drugs for patients with metastatic colorectal cancer. Its sales were \$US910 million in 2005 and \$US903 million in 2006. In terms of product development, there are numerous compounds in phase II studies, while both Astra Zeneca and Pfizer have compounds in phase III trials. Other companies are combining substances with irinotecan to try and improve safety and efficacy, but Alchemia is the furthest ahead.

**Verdict:** Alchemia's fondaparinux should create reasonable cash flows. It is not an easy drug to make and given Alchemia's manufacturing patents, further generic competition is unlikely. This should allow margins to be maintained. Xarelto is likely to take significant market share from the injectable heparins. However, major pre-operation and post-operation markets exist where injectable heparins will be preferred. Fondaparinux should do well in these markets, given its superiority to Lovenox in clinical trials.

HA-irinotecan looks especially promising given the extremely good phase II trial results obtained recently and that only one more trial will be required before registration. Considering the current sales of Camptosar and despite the current and expected future tightening in the market for metastatic colorectal cancer drugs, HA-irinotecan could yield some very significant, low-risk cash flows.

Alchemia already possesses the technology to become an exciting company, but I am not sure its directors have the skill set to make it one.

Both Hyact and Vast present an enormous array of opportunities, but without the experience to quickly and accurately choose the best opportunities for each, time will be lost and mistakes made.

The Euroscreen and Tetraq collaborations are evidence that Alchemia is getting its strategy right, while their high quality advisory boards give them access to considerable experience.

Nonetheless, the injection of a big dose of experience with international pharmaceutical platform-development strategy to the board should improve the speed and efficiency with which Alchemia's technologies are commercialized and, consequently, impress upon investors how much value there is in them.

Despite these needed changes, I believe Alchemia is one of the most undervalued ASX listed life science companies, as reflected in my valuation of \$1.61 a share.

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