

VIRAX HOLDINGS LIMITED

Virax Holdings Limited

ISIN	VHL
Listing	ASX
Shares outst. (m)	107.35
Mkt. cap. (AUD m)	9.66
Share price (AUD)	0.090
52 week high (AUD)	0.205
52 week low (AUD)	0.080
Average volume (3 months)	126.181
Cash on hand (AUD m) (as of 30/06/2007)	1.58

Conversion rates used: AUD 1 to USD 0.878



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COMPANY UPDATE

December 7, 2007

Virax Holdings Limited is an emerging drug development company that develops therapeutic vaccines for the treatment of chronic infectious diseases and cancer. Virax has three therapeutic vaccine candidates at different stages of development:

- VIR201 for the treatment of HIV/AIDS ready for phase IIb
- VIR501 for the treatment of hormone refractory prostate cancer ready to enter phase I/II
- VIR401 for the treatment of hepatitis B (HBV) infection in preclinical development

Each of these vaccine candidates addresses a sizeable group of patients that is poorly served by the currently available treatments and whose quality of life is seriously compromised. Virax's therapeutic vaccines are uniquely designed using the proprietary Co-X-Gene™ technology: the co-expression of a disease specific antigen and cytokine ensures simultaneous presentation to and modulation of the immune system resulting in a strong overall response.

In March this year, Virax announced a licensing agreement with the French vaccine company Transgene SA, granting the company an exclusive access to its Co-X-Gene™ technology for two of its vaccine candidates: TG4001 (MVA-HPV-IL2) which is about to enter phase III development for the treatment of human papilloma virus (HPV) related precancerous lesions of the cervix and TG4010 (MVA-MUC1-IL2), which is in phase II development for the treatment of non small cell lung cancer. Both vaccine candidates use Virax's co-expression technology of a disease specific antigen combined with an immune enhancing cytokine. In April, Transgene entered into a commercial partnership with Roche for TG4001.

This deal not only provides a strong and convincing third party validation of Virax's Co-X-Gene™ platform but it also provides the company with a significant short term cash flow potential. Virax can receive up to USD 12 million (AUD 13.7 million) in milestone payments plus royalties on vaccine sales which we expect to be in the low to mid single digit range.

To date, Virax has received approximately AUD 2.2 million in up-front and milestone payments from Transgene. Based on our risk adjusted net present value model, we estimate the remaining top line value of this license deal to be USD 15.8 million (AUD 17.9 million). With a current market capitalisation of AUD 9.7 million, it is clear that the investment community is overlooking the value of this deal.

Company profile

Virax Holdings Limited is an Australian biotechnology company that develops therapeutic vaccines for the treatment of infectious diseases and cancer. Virax's therapeutic vaccines are uniquely designed by combining a disease specific antigen with an immunomodulatory cytokine in the same genetic construct. The co-expression of the antigen and the cytokine ensures simultaneous presentation to and modulation of the immune system resulting in a strong antibody and cellular response using the proprietary co-expression technology, Co-X-Gene™. The technology was originally developed by the Australian National University and licensed exclusively to Virax for human health applications.

The Company has three vaccine candidates in development:

- VIR201 for the treatment of HIV/AIDS is the most advanced vaccine candidate. The vaccine is comprised of a fowlpox vector (the delivery vehicle) that has the genes for HIV Clade B gag/pol (the antigen) and human Interferon- γ (IFN- γ , the cytokine) inserted into its genome. In a controlled clinical study, VIR201 has been demonstrated to be effective in suppressing virus levels in HIV infected patients. The Company is planning a series of phase II trials in the US, Europe and Australia targeting patients on anti-retroviral therapy (HAART) and to undertake an additional trial that includes HAART-treatment-naïve patients in South-Africa.
- VIR501 combines the gene for the prostate cancer associated antigen prostatic acid phosphatase (PAP) with the T cell growth factor interleukin-2 (IL-2). A first clinical study in hormone refractory prostate cancer patients is planned to start subject to available funding in the course of 2008.
- VIR401 for the treatment of hepatitis B virus infection (HBV).is in preclinical development. The vector design has not been disclosed by the Company.

In a research study published in October 2006 by Bryan Garnier & Co, these programs were valued at AUD 59 million using a risk adjusted net present value model (rNPV). This valuation methodology involves constructing a cash flow model for each of the company's products and calculating a rNPV based on the probability of success of the product and the company's cost of capital. As the status of these programs has not changed over the last 12 months, one can assume that the product portfolio's current fair value did not increase compared to last year. The realisation of the value of these programs however remains highly dependent on the Company's ability to find sufficient funds to finance their development. Hence, the Company's current weak cash position has to be seen as the primary reason for the huge discount at which it is currently trading. Virax has already indicated that it is investigating a number of options to reinforce its cash position.

Co-X-GenTM license deal with Transgene

In March 2007, Virax announced that it had entered into a license agreement with the French vaccine company Transgene SA, giving the company exclusive access to the Co-X-GenTM technology for two of its vaccine candidates, TG4010 (MVA-MUC1-IL2) and TG4001 (MVA-HPV-IL2). TG4010 is in phase IIb clinical trials for treating non small cell lung cancer. TG4001 is about to enter phase III development for the treatment of human papilloma virus (HPV) related precancerous lesions of the cervix. In April, Transgene entered into a partnership with Roche for the development and commercialization of TG4001.

This licensing deal not only provides a clear external validation of Virax's vector platform but it also represents a source of short to mid term revenues for Virax until the Co-X-GenTM patents expire in 2016. According to the agreement, Virax is entitled to upfront and milestone payments related to the clinical progress of TG4001 and TG4010 and will receive royalties on vaccine sales.

To date, Virax has received AUD 2.2 million in upfront and milestone payments. According to the announced licensing terms, Virax can receive a total of USD 12 million (AUD 13.7 million) in development milestones, of which up to USD 3 million (AUD 3.4 million) is related to TG4001 and up to USD 9 million (AUD 10.3 million) is related to TG4010. In addition to the milestone payments, Virax is entitled to a royalty payment on vaccine sales, which we expect to be in the low to mid single digit range.

In view of the value of the TG4001 licensing deal that Transgene signed with Roche: up to EUR 195 million in milestone payments and double digit escalating royalties, we see it as highly likely that Virax will receive the USD 3 million in milestone payments over the coming three to four years. Based on the sales potential of TG4001 we estimate that royalties on product sales could amount to USD 4.5 million (AUD 5.1 million) per year.

The potential value of the TG4010 license is significantly higher than for TG4001. Based on the development stage of the product, we expect Transgene to be able to sign a commercial partnership for TG4010 in the course of next year. On top of the USD 9 million in milestone payments, we see a royalty potential for Virax of up to USD 14 million (AUD 15.9 million) per year.

Co-X-GenTM license valuation

We have established a fair value of the Co-X-GenTM license deal with Transgene using a risk adjusted net present value (rNPV) analysis. This model considers the possible cash flows from milestone and royalty payments for each of the individual vaccine candidates (TG4001 and TG4010) as of today until the expiry of the Co-X-GenTM patents in 2016. For each stage in development (pre-clinical, phase I-III, regulatory filing and marketing) the cash flows are risk-adjusted using a theoretical rate for success for a pharmaceutical product candidate in a given phase of development to reach the market. These are for a pre-clinical 5%, phase I 15%, phase II 30%, phase III 67%, Regulatory 81%. The resulting risk adjusted cash flows are then discounted using a discount rate of 15%.

Using the rNPV model, we have analysed and valued three possible scenario's:

- A base case scenario that is based on the assumption that Transgene will close a sub-licensing deal for TG4010 in the second half of 2008 or early 2009; the launch of TG4001 in 2011 and TG4010 in 2012.
- Scenario 2 considers a 1 year delay in the development of TG4010, compared to the base case scenario.
- Scenario 3 considers a 1 year delay for both TG4001 and TG401, compared to the base case scenario.

In establishing a fair value of the license agreement, the rNPV's of each of the three scenario's are probability weighted: 50% for the base case scenario, 30% for scenario 2 and 20% for scenario 3.

This model gives the Co-X-GenTM licensing agreement a weighted top-line value of USD 15.8 million (AUD 17.9 million).

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