# Biotech Daily

Tuesday August 5, 2008

*Daily news on ASX-listed biotechnology companies*

*** ASX, BIOTECHS DOWN: CYTOPIA UP 15%, ANTISENSE DOWN 13%**

*** FDA BACKS QRX PLAN FOR TWO PHASE III TRIALS**

*** ANTISENSE: ATL1102 ACTION DIFFERENT FROM TYSABRI**

*** BIOGUIDE BRIEF: PML AND ANTISENSE RISK; CEO RESPONSE**

*** HEARTWARE TO VOTE ON REDOMICILE TO THE US**

*** CHEMGENEX APPOINTS JEAN-LUC TÉTARD DIRECTOR**

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## MARKET REPORT

The Australian stock market fell 1.5 percent on Tuesday August 5, 2008 with the All Ordinaries down 75.6 points to 4,882.0 points.

Five of the Biotech Daily Top 40 stocks were up, 17 fell, six traded unchanged and 12 were untraded.

Cytopia was best, up three cents or 15.0 percent to 23 cents on small volumes, followed by Living Cell up two cents or 10.53 percent to 21 cents.

Universal Biosensors climbed 8.33 percent; Heartware was up 6.48 percent; Chemgenex rose five percent; with Resmed up 0.75 percent.

Antisense led the falls, down 0.9 cents or 13.04 percent to six cents with 987,000 shares traded, followed by Novogen down 10.83 percent to $1.07.

Prana lost 8.16 percent; Agenix was down five percent; Biota and Polartechnics fell more than four percent; Avexa, Clinuvel, Pharmaxis and Progen were down more than three percent; Ventracor fell 2.44 percent; with Acrux, Alchemia, Arana, Bionomics, Cochlear, CSL and Optiscan down more than one percent.

## QRX PHARMA

QRX Pharma says the US Food and Drug Administration has accepted its phase III protocol designs and analyses to demonstrate the efficacy and safety of Q8003IR.
QRX said Q80031R was an immediate release dual-opioid combining morphine and oxycodone intended for the management of moderate to severe acute pain.
Pending incorporation of the FDA's recommended modifications, "only two phase III trials will be required" for an investigational new drug application, the company said.
"Under this streamlined clinical development program, no additional pharmacology, toxicology or long-term clinical safety studies will be required for regulatory submission and market approval," QRX said.
QRX chief executive officer Dr John Holaday said the decision was "a significant and positive outcome".
"Acceptance of QRX Pharma's streamlined development plan for Q8003IR is a measure of success in terms of reduced risk, resource efficiencies and potential value of dual opioids," Dr Holaday said.
Following an FDA meeting on July 21, 2008, the company reported the FDA had determined no new animal safety studies were needed, accepted the design of the proposed combination rule study with minimal modifications and found the proposed number of patients receiving Q8003IR, as well as the duration of dosing, sufficient for regulatory submission of a 505(b)2 NDA. A phase III dose-ranging trial was completed in April (see Biotech Daily; May 5 and 22 2008).
Final phase III studies for Q8003IR will include a combination rule study in patients experiencing post-bunionectomy pain and placebo-controlled study in patients following total knee replacement. The trials are due to begin by the end of the year.
QRX was unchanged at 60 cents.

## ANTISENSE THERAPEUTICS

Antisense says its drug for multiple sclerosis has a different mechanism of action from Tysabri which has reported patients acquiring a viral infection of the brain.
On July 31 and August 1, 2008, Biogen Idec and Elan Corp notified regulatory agencies of two confirmed cases of progressive multifocal leukoencephalopathy (PML) in multiple sclerosis patients treated with Tysabri.
Antisense has previously been affected by Tysabri news because its RNA-interference drug partnered with Teva Pharmaceuticals ATL/TV1102 acts on the same target as Tysabri, the protein ligand VLA-4 (lymphocyte ligand very late antigen-4).
In a media release to the market today Antisense said ATL/TV1102 was a second-generation antisense inhibitor of CD49d, a subunit of VLA-4, a clinically validated target in the treatment of multiple sclerosis.
Antisense said ATL/TV1102 worked by binding to the messenger RNA of VLA-4.
"Importantly, ATL/TV1102 has a different mechanism of action, site of action and pharmacokinetic distribution profile than any currently-marketed [multiple sclerosis] treatments," Antisense said.
"There are no indications suggesting that ATL/TV1102 may be associated with a risk of progressive multifocal leukoencephalopathy and our clinical trials on ATL/TV1102 have shown no evidence of [John Cunningham] virus activation or PML," the company said.
Antisense said the development of ATL/TV1102 continues, following the completion of a phase IIa study that involved 77 patients on the product for eight weeks.
Antisense fell as low as five cents or percent before closing down 0.9 cents or 13.04 percent at six cents with 987,000 shares traded.

## MARC SINATRA'S BIOGUIDE: ANTISENSE

Antisense had a setback yesterday when Biogen Idec and Elan Corp reported two more cases of the opportunistic viral disease progressive multifocal leukoencephalopathy (PML) in patients treated with their multiple sclerosis (MS) drug, Tysabri.

The news is of relevance because Antisense is developing an MS drug, recently licenced to Teva Pharmaceuticals, that ultimately aims to prevent the same part of the MS inflammatory phenomena that Tysabri does. That phenomenon is the entrance of immune cells to the central nervous system via their expression of very late antigen-4 (VLA4).

Scientific purists could argue on two fronts that this news should not affect Antisense. Firstly, they could argue that the incidence of PML in patients taking Tysabri has not been shown to be significantly higher than the incidence of PML in the general population. Secondly, they could argue that although Tysabri and Antisense's drug ultimately appear to act to achieve the same effect, differences in the way they work mean that Antisense's drug shouldn't be tarred with the same brush as Tysabri.

In its market update today, Antisense has basically used the latter argument by highlighting the differences between their drug, ATL1102, and currently marketed treatments, and by saying that they have seen no indications that their drug is associated with an increased risk of PML.

Although this is an argument they are clearly justified in making, active investors should always tread warily because they make their money by accurately assessing the future prospects of a company. If they wait for theoretical or statistical proof, the market will have already moved and, at the least, an opportunity will be lost.

Based on the theory behind the mode of action of Tysabri and ATL1102 in treating MS, and the observation that PML incidence is highest in immuno-compromised patients, such as those on immuno-suppressive drugs and AIDS patients, I believe the possibility that ATL1102 may result in increased risk of PML among users is real.

On the other hand, MS sufferers have remained extremely eager to use Tysabri despite a one in 1,000 risk of developing PML over 18 months. This indicates that ATL1102 can be a highly successful drug even if it results in the same incidence of PML.

On the upside, if PML is found not to be an issue with ATL1102, ATL1102 would have a significant advantage over Tysabri that could see it rapidly become a blockbuster in a market expected to be worth $3 billion by 2010. In ATL1102's favor, no patient treated with it has been found to have the virus that causes PML in their blood.

To be cautious, Antisense's shares should be marked down a little bit on the latest news, but probably by only one or two percent, at most.

## Antisense chief executive officer Mark Diamond responds:

"Even with the risk of PML, Biogen expects to have 100,000 patients by 2010," Mr Diamond told Biotech Daily. "Other monoclonal antibody drugs cause PML and we have not seen any antisense drugs cause PML."

"Monoclonal antibodies bind to the VLA-4 receptor in the blood and block the activity of VLA-4 stopping lymphocytes crossing into the central nervous system where they cause MS.

"ATL1102 is taken up by the VLA-4 bearing cells and then are incorporated into the cell's nucleus, binding to the messenger RNA, blocking production of VLA-4.

"We think this could be germane to the safety issue because JC Virus is latent in cells and monoclonal antibodies bind to the cell causing signaling in these cells, potentially activating the JC virus. ATL1102 doesn't do that.

"In fact, due to the different modes of action, ATL1102 may well be a superior and safer drug."

## HEARTWARE

Pending shareholder and regulatory approval Heartware will redomicile to the US in preparation for a possible full listing on Nasdaq.

Through an agreement with its wholly owned subsidiary Heartware International Inc a new corporate structure will be established with Heartware International the ultimate parent company of the Heartware group.

As a result, Heartware shareholders, optionholders and performance rights holders will exchange their existing interests for equivalent interests in Heartware International.

Heartware said the group's business, operations, management and employees will not change as a result of the transaction and the board will be replicated in Heartware International.

Heartware International will replace Heartware as the entity listed for quotation on the ASX.

To achieve this, Heartware shareholders will receive CHESS Depositary Interests (CDIs) in Heartware International and it is these CDIs which will trade on ASX.

The company says that each CDI is, in general terms, equivalent to one existing ordinary share in Heartware.

Heartware said the US was its largest single target market and a substantial majority of its operations are in the US along with a majority of Heartware's institutional shareholders.

The new structure is expected to give greater access to US investors, adding depth and liquidity to Heartware shares, while maintaining strong ties with its Australian investor base.

Heartware's director of corporate development Howard Leibman said a 35-to-one share consolidation would create shares of an appropriate size for listing on the Nasdaq, but the Australian CDIs would be equivalent to existing Heartware shares.

Mr Leibman said the move was to facilitate a full Nasdaq listing at a time of the company's choosing.

He said a full listing was not imminent.

The move to the US will be through a scheme of arrangement with scheme meetings planned for October 1, 2008 and implementation on October 21, 2008.

Heartware climbed 3.5 cents or 6.48 percent to 57.5 cents.

## CHEMGENEX

Chemgenex has appointed Stragen president Jean-Luc Tétard as a director, effective immediately.

Chemgenex said Mr Tétard was an experienced senior executive and director with more than 35 years experience in the pharmaceutical and biotechnology industries.

As founding chief executive officer of Stragen Chemical SA and Stragen Pharma SA, Mr Tétard guided the growth and success of the Stragen Group for 18 years.

Chemgenex said Stragen had become "a European leader in developing and distributing generic pharmaceuticals".

Chemgenex said Stragen had about 200 drug marketing approvals globally and has operations in Switzerland, France, the UK, Germany, Scandinavia, Russia and Canada.

Prior to founding Stragen Mr Tétard worked for French pharmaceutical company Sanofi (now Sanofi-Aventis) as a senior executive in pharmaceutical manufacturing.

Chemgenex chief executive officer Dr Greg Collier said Mr Tétard's experience "in marketing, distribution and corporate development, particularly in the European context, will be an invaluable asset for us".

Chemgenex was up five cents or five percent to $1.05.

CRC REVIEW

Minister for Innovation, Industry, Science and Research, Senator Kim Carr, has welcomed the review of Australia's Cooperative Research Centres program.

In a media release, Senator Carr said the review was an important contribution to the broader examination of Australia's National Innovation System.

The Cooperative Research Centres (CRC) review was undertaken by Prof Mary O'Kane, who was supported by the collaboration working group of the National Innovation System Review.

That review is due to report to the Government by August 29, 2008, providing a Green Paper to be released shortly thereafter.

The Government will consider the recommendations of the CRC review along with those from the review of the National Innovation System and will respond with a White Paper later this year.

"The CRC program was established under the Hawke Government in 1990," Senator Carr said.

"Over that time it has been extraordinarily successful, with the Australian Government committing nearly $3 billion to establish 168 CRCs," Senator Carr said.

He said CRCs had produced more than 4,650 industry-ready postgraduates, including 2,460 graduates with doctorates of philosophy.

"However, over recent years the focus and emphasis of the program has shifted, Senator Carr said.

"The previous government cut public interest research out of the program."

"We committed to filling that void and this report lays out the options for reviving the CRC program," he said.

The review has made recommendations in relation to:

funding and frequency of selection rounds;

objectives of the program;

broadening participation;

co-funding arrangements;

program administration;

evaluation arrangements; and

the positioning and integration of CRCs within the National Innovation System.

The review also recommends the creation of a new program to support the development of closer relationships in those industries and sectors where little collaboration currently occurs.

"We need to make a greater effort to bring researchers and innovative companies together," Senator Carr said.

"It is vital to a healthy innovation system, but an area in which Australia has been falling further behind our competitors over recent years," he said.

"Breaking down barriers and drawing upon different skills, perspectives and experiences lies at the heart of the CRC philosophy," Senator Carr said.

More information about the CRC review, including the report, is at www.innovation.gov.au/innovationreview.

## INNOVATION CONFERENCE

Innofuture, a division of Global Trendz Marketing, has convened an innovation conference sponsored by Telstra, Deloitte and Cochlear to be held in Melbourne in September.

Innofuture's "chief inspirator" Margaret Manson said the conference intended to build "innovation capacity for the global knowledge economy".

Ms Manson said she began organizing the conference in 2007 and with support from Telstra, Deloitte and the Victorian Government was in the right place when the incoming Federal Labor Government announced its innovation review.

In a media release, Innofuture said it was "developed in response to the growing need for practical, accountable tools and answers to aid in fast-tracking innovation which now depends on the integration of social, economic and environmental objectives".

Innofuture said the conference would present "a holistic way of thinking about innovation, bringing together latest models, systems and strategies to create and manage highly competitive and innovative organizations and people".

Innofuture described itself as "an inspirational business event designed to take innovation knowledge to the next level of competitiveness".

"It is about knowledge transfer for businesses and organizations", the organization said.

The opening address on the first day of the conference September 9, 2008 is scheduled to be made by Victoria's Minister for Innovation Gavin Jennings, with the second day's opening session by the chair of the National Innovation Review, Dr Terry Cutler.

The conference will be held at the Sebel Hotel, Albert Park, Melbourne.

For further information go to www.innofuture.com.au or contact Roxanne Medel on +613 8647 5122 or email Roxanne.Medel@team.telstra.com.