# Biotech Daily

Tuesday March 23, 2010

*Daily news on ASX-listed biotechnology companies*

*** ASX, BIOTECH UP: GENETIC TECH UP 18%; CHEMGENEX DOWN 37%**

*** FDA CHIDES CHEMGENEX ON DATA, REQUIRES DIAGNOSTIC TEST**

*** BIOGUIDE BRIEF: CHEMGENEX DARK CLOUD, SILVER LINING**

*** MESOBLAST, ANGIOBLAST DECISION NEARS; CEO ROLE; PIPELINE**

*** PHYLOGICA LOOKING FOR EARLY STAGE DEALS**

*** PHOSPHAGENICS, QUIGLEY $4m+ OTC JOINT VENTURE**

*** MEDIMMUNE LICENCES FOUR XENOME PEPTIDES**

*** AVEXA RELEASES DETAILED ATC PHASE III RESULTS**

*** ACUVAX $100k WORKING CAPITAL PLACEMENT**

MARKET REPORT

The Australian stock market climbed 0.92 percent on Tuesday March 23, 2010 with the S&P ASX 200 up 44.6 points to 4874.8 points.

Sixteen of the Biotech Daily Top 40 stocks were up, 12 fell, five traded unchanged and seven were untraded.

Genetic Technologies was best, up 0.7 cents or 18.4 percent to 4.5 cents with 480,184 shares traded, followed by Phylogica up 10.5 percent to 10.5 cents with 1.1 million shares traded.

Mesoblast and Viralytics climbed more than five percent; Clinuvel was up 4.1 percent; Avexa and Prima were both up 3.57 percent; Impedimed, Sunshine Heart and Universal Biosensors rose more than two percent; with Cellestis, Heartware, LBT and Optiscan up more than one percent.

Chemgenex led the falls, down as much as 61.9 percent to 26.5 cents but closed down 25.5 cents or 36.7 percent at 44 cents with 64.8 million shares, followed by Cathrx down 16.45 percent to 16.5 cents with 54,750 shares traded.

Phosphagenics lost 5.3 percent; Acrux fell 4.2 percent; Alchemia, Prana and Uscom fell more than three percent; Circadian and Genera shed more than two percent; with CSL, Sirtex and Starpharma down one percent or more.

CHEMGENEX

The US Food and Drug Administration's Oncologic Drugs Advisory Committee has required Chemgenex to conduct a diagnostic test prior to approval of Omapro.

Chemgenex shares plummeted as much as 61.9 percent from 69.5 cents to 26.5 cents on the news, partly recovering later in the day.

In a seven-to-one vote, the Committee required the test for chronic myeloid leukemia with the T315I mutation "to help validate the study results prior to approval".

But separate sources told Biotech Daily that in the telecast of the decision two committee members said they were ready to approve the drug if that was the question asked.

An FDA spokeswoman told Biotech Daily the only question put to the Committee was: "Should a well characterized in vitro diagnostic to identify patients with the T3151 mutation be required and reviewed by the FDA and correlated to clinical trial results prior to approval of omacetaxine for the proposed indication?"

The FDA said that Chemgenex was seeking approval for Omapro (omacetaxine mepesuccinate) - an injection for the treatment of adults with chronic myeloid leukemia (CML) bearing a genetic alteration known as the Bcr-Abl T3151 mutation and who have failed prior therapy with the drug imatinib.

The FDA said the study was a small, single, efficacy study in chronic myeloid leukemia that had initially planned to enroll 100 patients, but the application was submitted with efficacy and safety data from only 66 patients.

The sponsor was able to enroll 31 additional patients, but the FDA said it was "currently missing data on these patients".

Chemgenex chief operational officer Dr James Campbell told Biotech Daily the additional data was presented at a conference last year (BD: Dec 7, 2009) and was available at the meeting, but was not requested by the Committee which was focused on the question of the diagnostic.

The FDA said two different assays with different performance characteristics were used to detect the T3151 mutation - so test standardization was not present in the study, the FDA said.

"The lack of a uniform in-vitro diagnostic test creates uncertainty about patient selection in both this trial and the post approval setting," the FDA said.

The FDA said it was not seeking the committee's opinion on whether to approve the drug based on clinical benefit, but rather if a diagnostic test should be required and reviewed by the FDA to help validate the study results prior to approval.

Following the ODAC decision Chemgenex said it had been "working with the FDA on the T315I diagnostic matter" and the FDA would meet with the company on April 9, 2010.

Chemgenex's chief medical officer Dr Adam Craig said the company was "encouraged by the positive comments from some members of the ODAC panel about the benefits of Omapro and the unmet medical need for [chronic myeloid leukemia] patients with the T315I mutation".

"We have a meeting scheduled next month with members of the FDA's drug and diagnostic teams and will continue to work with the agency as it considers our new drug application for Omapro," Dr Craig said.

Chemgenex chief executive officer Dr Greg Collier said Chemgenex had been working closely with the FDA over the past several months on a diagnostic strategy to allow for approval of Omapro.

"We are committed to making Omapro available to patients as soon as possible," Dr Collier said.

Chemgenex fell as much as 61.9 percent from 69.5 cents to 26.5 cents but closed down 25.5 cents or 36.7 percent to 44 cents with 64.8 million shares traded.

## MARC SINATRA'S BIOGUIDE BRIEF: CHEMGENEX

This morning's US Food and Drug Administration's Oncologic Drug Advisory Committee decision isn't as bad as it appears. In fact, today's trading probably represented a good buying opportunity.

ODAC's main problem with Chemgenex's T315I trial is whether or not the trial patients actually carried the T315I mutation.

Previously, after reviewing Chemgenex's data, the FDA found that 35 percent of study subjects had not had their mutation status confirmed by the central laboratory at the time of enrolment.

Importantly, judging from feedback relayed back by Chemgenex from the ODAC meeting, neither safety nor efficacy is in question.

The precise nature of the problem is the quality of the T315I mutation testing Chemgenex used in its trial. It was not standardized, as different tests were used in different patients. There is also no test for the T315I mutation that the FDA recognizes as validated.

If the testing undertaken by Chemgenex in the trial has a high false positive rate, many patients without the T315I mutation may have been included in the study. If this is the case, the same thing is likely to occur in the real world if the drug is approved and you could end up with patients incorrectly diagnosed as carrying the T315I mutation who might be prescribed Omapro, when, in fact, until Omparo is approved for more general forms of chronic myeloid leukemia, they may be better off on another tyrosine kinase inhibitor.

If the FDA's concerns about the T315I status of patients turn out to be unfounded, it means that few patients are likely to be misclassified once the drug is on the market and few will be at risk of receiving suboptimal therapy.

The next step will be for Chemgenex and the FDA to look at the testing procedures used in the study to determine the true mutation status of the patients enrolled in it.

The truth of the matter is that accurately identifying a point mutation is something that every medical molecular biology laboratory should be able to do. Consequently, I see little risk that Chemgenex won't be able to satisfy the FDA's concerns.

In my opinion, the FDA will ultimately approve Omapro for chronic myeloid leukaemia patients carrying the T315I mutation. The question is just when.

Chemgenex deserves a big kick in the pants. Its running of this trial has been sloppy and caused undue stress to its shareholders.

It should also serve as a warning to other Australian biotechnology companies regarding the FDA's requirements and remind them that they need to carefully design their clinical trials and actively manage them.

**Marc Sinatra, analyst**

* Biotech Daily editor David Langsam and analyst Marc Sinatra own Chemgenex shares.

MESOBLAST

Mesoblast and its US sister company Angioblast will make a decision in the next few months over their relationship and the role of executive director Prof Silviu Itescu.

Asked when he would be appointed chief executive officer of Mesoblast, Prof Itescu told Biotech Daily that his formal title would be decided “I would hope in the very near term”.

Both companies develop therapeutic mesenchymal adult stem cells.

Mesoblast owns about 38 percent of Angioblast and the founder and executive director of both companies Prof Itescu owns “about 40 percent” of Angioblast and less than 30 percent of Mesoblast (BD: Aug 19, 2009).

Biotech Daily has previously raised the question of simplification and streamlining of the two companies and Prof Itescu said it is less of an issue for Mesoblast shareholders than for commentators.

But he said the way forward for the two companies was “number one on our priority list” and the companies had three primary options: Angioblast could list on the Nasdaq, the ASX or merge with Mesoblast.

Prof Itescu said he could not be the chief executive officer of two listed companies.

“A public Angioblast would need a new management,” Prof Itescu said.

Prof Itescu said no decision had been made and the primary concern was to “deliver the optimal outcome for Mesoblast shareholders”.

“In the next couple of months a decision has to be made,” Prof Itescu said.

“Angioblast is moving towards phase III trials in bone marrow and cardiac and it is ridiculous to have a private company in phase III,” he said.

He said Angioblast was not cashed-up for phase III trials and a private company was not the way to go.

But he said that it would be up to Mesoblast shareholders to make a decision and his own large parcel of shares would not be included in a vote because of the conflict of interest.

Prof Itescu detailed the two companies’ pipelines.

He said Angioblast had a bone marrow transplant drug that has “almost completed” a pre-phase III clinical trial of up to 30 patients.

He said the company had data on 15 patients with full results expected by July 2010 and discussions with the FDA were expected this year.

Prof Itescu said there could be revenue from the drug by 2012.

Angioblast had 60 patients in a phase II heart failure trial, randomized with two active arms to placebo and the third cohort on the highest dose of cells would be fully implanted “by mid-year” with interim data on all cohorts by the end of 2010.

Prof Itescu said the company would then have to decide whether to conduct a phase IIb trial or a phase III, which would depend on the results, funding and potential partners.

“The interim results of the lowest dose looks spectacular,” Prof Itescu said.

He said Mesoblast had a series of clinical trials underway using adult stem cells for spinal injuries including a phase IIa lumbar fusion trial.

Prof Itescu said lumbar fusion was a major market and the lead competitor Medtronic had sales of $US1 billion a year for its drug.

He said Mesoblast was also preparing phase II trials for cervical fusion and spinal disc repair.

Prof Itescu said the company was in a phase IIa trial of its adult stem cells for arthritic knee post-traumatic anterior cruciate ligament repair to prevent osteoarthritis.

He said data from a phase Ib long bone fusion trial conducted at the Royal Melbourne Hospital would form part of an application to the Australian Therapeutic Goods Administration “over the next couple of months”.

Mesoblast climbed 11 cents or 5.3 percent to $2.18.

## XENOME

Xenome says Medimmune has exercised its option for exclusive licenses to four peptides from its venom peptide library against an undisclosed target involved in a pain pathway.
Xenome said Astrazeneca's biologics unit Medimmune screened Xenome's Xdiscover library of peptides.
The company said the financial terms of the licences were confidential, but it would be eligible to receive undisclosed milestone and royalty payments associated with the ongoing development of product candidates derived from the peptides.
Xenome said the Xdiscover library was a proprietary collection of more than 2000 primarily venom-derived peptides from cone snail venom tissue.
Xenome is a public unlisted company.

## PHYLOGICA

Phylogica chairman Dr Doug Wilson and chief executive officer Prof Paul Watt are on a road show to explain the company's business strategy.
Prof Watt told Biotech Daily that client companies "pay us to search for compounds for their targets or problems or issues and we collect milestones".
Dr Wilson said that third party validation came from contracts including its early stage discovery deal with Roche at the end of last year which he said was a first for Australian biotechnology.
"The deal was barely noticed by the market because it was struck over Christmas," Dr Wilson said.
On December 18, 2009, Phylogica said it had signed an agreement with Roche to evaluate its Phylomer technology in transporting large molecules to attack disease targets within cells.
Then Phylogica's chief scientific officer and the technology's inventor Prof Watt said the challenge of targeting macromolecules to the intracellular matrix was "an exciting new frontier in drug development" and Roche would evaluate the Phylomer technology for transporting large molecules to attack disease targets within cells (BD: Jan 17, 2010).
Dr Wilson said Phylogica was "in advanced negotiations with two of the top 10 companies other than Roche".
Prof Watt said the company had a cash burn of $4.5 million a year and cash in the bank of $2.89 million as of today and Dr Wilson said the company was earning revenue and had reappraised its business model.
Dr Wilson said Phylogica would be cash flow neutral by mid-2011 through its early stage development deals which include up modest up front fees of about $500,000, with fees for service and milestones, as well as single digit royalty payments.
Prof Watt quoted the March 2010 edition of the journal Nature Reviews Drug Discovery (p183) showing a distinct trend to early stage licencing.
He said Phylogica would be a pure discovery company and with Phylomers one fiftieth the size of antibodies that meant they "can bind to targets like antibodies, but they are smaller and don't necessarily need to be injected".
He said they could also be administered sub-lingual or under the tongue.
Prof Watt said Phylomers could be more easily manufactured synthetically, with relatively low cost production.
Dr Wilson said that former Psivida chief executive officer Gavin Rezos' role with the company was to raise international capital, but he was "not part of the management structure".
Phylogica was up one cent or 10.5 percent to 10.5 cents with 1.1 million shares traded.

## PHOSPHAGENICS

Phosphagenics says it has formed a joint venture with Quigley Corp to develop a range of over-the-counter remedies using its tocopheryl phosphate mixture or TPM technology.
Phosphagenics said the joint venture would be Phusion Laboratories.
Quigley and Phosphagenics will each own 50 percent of Phusion which has been granted a worldwide, exclusive, royalty-free licence to the TPM technology for use in a wide range of products, applications and active ingredients.
Quigley will make a payment to Phosphagenics of $US1 million ($A1.09 million) and issue Phosphagenics 1.44 million Quigley shares which was valued at about $3.185 million.
Quigley has contributed $US500,000 ($A545,000) of initial capital and committed up to $2.18 million to initial development and marketing costs of new products for Phusion.
Phosphagenics will oversee product development, formulation, testing and other research and development and Quigley will oversee distribution, sales and marketing.
Phosphagenics fell half a cent or 5.3 percent to nine cents with 10.5 million shares traded.

## AVEXA

Avexa has released detailed 24-week results from its phase III clinical trial of apricitabine for HIV.
Last month Avexa released preliminary data showing a non-significant positive clinical benefit for apricitabine compared to the standard of care (BD: Feb 4, 2010).
At the time Avexa said a greater percentage of patients on apricitabine (ATC) reached "undetectable" viral loads of less than 50 copies per millilitre than patients on 3TC.
Today the company restated that the study was stopped early and the results lacked statistical significance, but the detailed results showed that "HIV infected patients treated with 800mg of apricitabine twice daily experienced a positive clinical benefit compared to the 3TC-based current standard of care".
Avexa said apricitabine was consistently active against all patient types from first-line failures to treatment-experienced patients and patients with high viral loads.
The company said that in the more experienced patient population apricitabine achieved a 14 percent improvement over the standard of care with 3TC.
Avexa said that a genetic analysis of patients' virus isolates did not reveal any subgroups of HIV that would be likely to have a reduced response to apricitabine, showing that apricitabine should be active against the vast majority of HIV in the infected population.
Avexa was up half a cent or 3.6 percent to 14.5 cents with 10.3 million shares traded.

## ACUVAX

Acuvax hopes to raise $100,000 through a share placement "to meet near term working capital needs of the company".
Acuvax said the placement would be to sophisticated investors at one cent per share, with funds expected to be received tomorrow March 24, 2010.
Acuvax said it had a $10 million equity draw down facility with Fortrend Securities.
Acuvax fell 0.1 cents or 8.3 percent to 1.1 cents.