



Biotech Daily

Friday June 13, 2008

Daily news on ASX-listed biotechnology companies

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- * **BIOGUIDE - CIRCADIAN CHANGES ITS RHYTHM**
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MARKET REPORT

The Australian stock market recovered 0.9 percent on Friday June 13, 2008 with the All Ordinaries up 46.4 points to 5,479.6 points.

Twelve of the Biotech Daily Top 40 stocks were up, 15 fell, 10 were unchanged and three were untraded.

Agenix was best, up 1.2 cents or 23.53 percent to 6.3 cents, followed by Starpharma up 10.34 percent to 32 cents and Portland up 9.68 percent to 3.4 cents.

Peplin and Universal Biosensors climbed more than eight percent; Arana and Mesoblast were up more than six percent; Cochlear and Genetic Technologies were up five percent or more; Proteome rose four percent; with Chemgenex and Heartware up more than one percent.

Optiscan led the falls, down two cents or 9.76 percent to 18.5 cents, followed by Novogen down 8.8 percent to \$1.14.

Cathrx, Cellectis and Clinuvel lost more than five percent; Avexa fell 4.48 percent; Benitec, Bionomics, Phylogica and Tissue Therapies were down more than three percent; Prana and Sirtex shed more than two percent; with Antisense, Progen and Ventracor down more than one percent.

MESOBLAST

The founder of New York's Angioblast Systems and Melbourne's Mesoblast, Prof Silviu Itescu is defensive about his ill-defined roles in the two companies.

The buck stops with him so he's the boss, but his various titles of founder, director and chief scientific adviser, don't define what he does.

From his office in a part of the Dick Pratt empire on the 39th floor of 55 Collins Street, Silviu Itescu has an excellent view of the world and he is clearly a man with great oversight as well as meticulous attention to detail.

Born in Ceausescu's Romania in 1957, Silviu's parents were sponsored to come to Australia when he was seven years old. He is measured in his assessment of Romania's dictator, who allowed Jews to leave the Iron Curtain - in exchange for cash payments. Silviu followed a well-worn immigrant path, from Elwood Primary School to Caulfield North and then Melbourne High School, graduating in 1975 and taking a place at Monash Medical School the following year. He did a one year internship at the Alfred Hospital and that's where his trajectory differs from most.

Silviu's next job was a residency at New York's Bellevue Hospital, the public teaching hospital of the University of New York. Not a lot of second year-out doctors do that. The patients were the poor, the homeless, the huddled masses and Melbourne's Dr Itescu "arrived right in the middle of the AIDS epidemic".

"Thirty percent of admissions were HIV/AIDS patients," Silviu says.

So it wasn't a surprise that when he completed his residency he undertook a three year fellowship in immunology and rheumatology at New York University.

He says Bellevue Hospital residents were given a free reign, so there was a great deal of responsibility in decision-making. Most New York doctors can find somewhere more upmarket to practice. Doctors at the Bellevue were often there through choice.

In 2000, Dr Itescu was recruited to Columbia University, which had the biggest heart transplant group in the US, to establish an immunology research unit for transplants.

"We were looking for alternatives to transplants – it's just not an option for most," Silviu says. "There are 4,000 transplants in the US a year and 60,000 on the lists and many more who could have a transplant."

He says there was the idea that if you couldn't transplant the organ, then what about part of the organ?

"We were trying to grow tissue in the laboratory. They were already using bone marrow transplants. You build on other people's work, nothing comes out of thin air," Silviu says. Using Federal Government grants, his unit developed a method to proof-of-principle stage using adult bone marrow to grow heart muscle.

It led to recognition of the highest order - a paper in Nature in 2001, with the snappy title of 'Neovascularization of ischemic myocardium by human bone-marrow-derived angioblasts prevents cardiomyocyte apoptosis, reduces remodeling and improves cardiac function' (*Nature Med.* 7: 430-6 {2001}). Columbia's director of transplantation immunology had come a very long way in the 36 years since leaving Romania.

"We were using whole bone marrow. We didn't quite know what to go after. And we never intended to commercialize it. Columbia encouraged us to set up Angioblast Systems."

Along with seed investors, Columbia University, medical personnel and pharmaceutical executives the company was founded, but "the business model didn't make sense".

"We needed to move it to off-the-shelf cells for treatment," Silviu says.

Angioblast continued its investigation of stem cells and biologicals for cardio-vascular disease. The core of the technology is manufacturing generic cells that can become cartilage, fat, bone or cardiac tissue.

Antibodies are used to identify specific cells which are extracted from bone marrow, then amplified into billions of cells. Importantly, they don't activate the immune system. The cells left behind are the ones that trigger immune reactions.

"I don't know why they don't activate the immune system, but they don't." Silviu says disarmingly, his eyes full of a young scientist's enthusiasm. "We got lucky."

One leading Melbourne cardiologist, who owns shares in Mesoblast, says it is the only way forward. Transplants depend on dead donors and their numbers are insufficient. He says pumps won't be favorable until they fit into the body without external wiring.

But the cardiologist also notes: "The issue will be how to effectively get enough new stem/heart muscle cells into the appropriate area efficiently in large enough numbers to do the job. So far, apart from direct injection at the time of cardiac surgery, other methods such as catheter-based techniques, which one would ultimately like to think would be the preferential way of cell introduction, have been proving not overly efficient."

The search for a stem cell solution led to Adelaide's Hanson Institute, Medvet and Dr Paul Simmons. Angioblast had no interest in the orthopaedic program, but Silviu saw the value of having stem cells for both bone and cardiac.

"I set up Mesoblast in Australia specifically to commercialize the orthopaedic indications for the technology. Not too many start-ups can do both simultaneously."

Silviu had known Richard Pratt's son-in-law Alex Waislitz since university days and had acted as a biotechnology consultant to the Pratt family company Thorney.

Silviu says he owns "less than 50 percent of Angioblast" and about 34 percent of Mesoblast. The Thorney-Thistle-Pratt group is substantial and has bought into all three capital raisings. The most recent substantial shareholder notices had Thorney and Thistle at 7.75 percent, Portfolio Partners and Aviva Group at 5.1 percent, with AMP reducing its earlier 11.55 percent holding to 6.9 percent on April 7, 2008. Mesoblast has been as high as \$2.40 in January 2007, falling to 51 cents in April this year.

Silviu has ensured control of the two companies while scrupulously absenting himself from board decisions that affect him. He has gathered together the intellectual property around stem cell development into tissue and the two companies reduce each other's costs.

"We saved ourselves \$20 million in scale-up and manufacturing and are getting twice as much for the investment dollar."

Angioblast can't undertake a capital raising without Mesoblast's permission and Donal O'Dwyer is Mesoblast's representative on the Angioblast board. The two companies have separate law firms and negotiations can be as hard as between any companies.

Silviu says there is a full range of options ahead. The two companies could be rolled together, Angioblast could be listed separately on Nasdaq.

Angioblast is investigating cardiac and other indications including eye disease, while Mesoblast focuses on long bone, spine and cartilage.

Silviu says the need is not for a systemic drug for knee cartilage repair, but for a local application.

"A single injection can protect existing tissue and probably make it grow."

It is at the end of the two hour working lunch that we broach the question of board and management.

Silviu says he is driving a great team of executives and it is appropriate that the company has an executive director. Asked about the public and retail investor confusion about who is running the company he says nothing has changed in four years.

He says a corporate executive is not necessary if the founder can run the company. It is a formula a lot of institutional investors don't like, but Silviu refers to CSL's Dr Brian McNamee as a great example of a doctor successfully running a biotech.

"Running a business is not the definition of running a biotech," Silviu responds.

"Management drives the company, the board provides oversight and governance.

"My interests are aligned with the people who have backed the company. I'm not going to make decisions based on being wedded to the company. If someone came out of the blue with the right offer, why wouldn't we consider it?"

Having brought Angioblast and Mesoblast to a series of US Food and Drug Administration approved phase I and II trials in a range of indications, Silviu sees no reason to step aside for a corporate chief executive officer, although he does say that his contract adviser position at Mesoblast is being discussed by the board and he is hoping that they will make the right offer. Then he might change his title, but it would only be the title.

Mesoblast is expected to return to the Biotech Daily Top 20 Index at the end of this month. Mesoblast was up seven cents or 6.67 percent to \$1.12.

MARC SINATRA'S BIOGUIDE: CIRCADIAN TECHNOLOGIES

Evolution, survival of the fittest, Charles Darwin; it doesn't just apply to living organisms, it applies to businesses, as well.

Two days ago, Australia's oldest listed biotechnology company or "incubator", Circadian Technologies ceased to exist as we have known it for so many years (see Biotech Daily, June 11, 2008). It is now a biotechnology company in the more modern sense.

It wasn't a surprise. The change had been well flagged. Apparently, it wasn't news either. I hear about Biotech Capital's share buy-back every morning, but haven't seen anything in the press about the demise of the "old" Circadian since the announcement to the stock exchange made it official. Absolutely amazing.

The reason for the change is really very simple, not rocket science nor a stroke of business genius. Circadian, similar to most listed investment funds, has traded for years at a significant discount to net tangible assets. The vast majority of standard biotechnology companies, on the other hand, trade at a premium. Change the focus of the company to that of a standard biotech and the share price should rise. Mayne Group became Mayne Pharma for essentially the same reason, when its plan of being a vertically integrated, healthcare company failed to reap the expected benefits for shareholders.

Will the plan work? It should. The market at this stage, however, indicates otherwise, with Circadian's announcement doing nothing to raise the share price, so far. It is likely that investor sentiment towards the biotechnology sector is simply over-riding everything else. The plan is that Circadian will focus its efforts on developing drugs based on the extensive vascular endothelial growth factor intellectual property portfolio held by its majority-owned subsidiary, Vegenics. And the management looks good.

Its product development review group seems to have every significant Australian expatriate pharmaceutical executive on it. Interestingly, only one member of the group has also joined Circadian's board, so far. Given the board still lacks the look of a true drug development company, more changes may well be on the way.

Evolution favors the fittest and according to the biotechnology forces the old Circadian is no longer the fittest. That's life. It isn't good, it isn't bad, it just is.

We all owe the old Circadian and its founder Leon Serry our gratitude. Biotechnology in Australia would not be where it is today without them.

Of the many things we have learned from Circadian over the years, two stand out: the first is that you can create a biotech industry where there was none and the second is that evolution is not sentimental.

Marc Sinatra holds Circadian shares.

Circadian was unchanged at 92.5 cents.

AGENIX

Agenix has created US subsidiary Vector Medical Solutions to manage its Thromboview assets for imaging pulmonary embolisms and deep vein thromboses.

Agenix said that "with our increased focus on the near term Chinese opportunity, it now makes strategic sense to spin-off Thromboview into a wholly-owned US subsidiary".

That opportunity is the State-registered anti-hepatitis B drug Youheding (adefovir dipivoxil) and the assets acquired from Shanghai Rui Guang Bio-Pharma Development Co (SHRG) and Shanghai Yi Sheng Yuan Pharmaceutical (see Biotech Daily; May 28, 2008).

"Most of the clinical trial sites for the current phase II trial and future phase III trials will be in the US, the product will be manufactured in the US, the largest market opportunity for Thromboview is in the US and potential partners are likely to be US based," Agenix said.

The company said managing the project from Australia "no longer makes strategic sense".

Agenix said a US company could tap US capital markets if necessary.

Dr William I Ramage has been appointed Vector's president and chief executive officer. Agenix said Dr Ramage was a consultant for Agenix and an expert in diagnostic imaging. He has a degree in chemistry from Glasgow University and a D Phil in organic chemistry from Oxford University and has spent his 30-year career in diagnostic imaging and was vice president of the radiopharmaceuticals division of Dupont Merck.

Agenix said patient recruitment in the phase II pulmonary embolism study was "on track" to complete the live phase by July 2008, allowing preliminary diagnostic performance data in September to support partnering discussions and submit a final report to US Food and Drug Administration in early 2009.

Rolling blinded reads, in which the expert readers get no patient information other than the images to make their diagnosis, of small batches of Thromboview images from this trial, along with the study comparator, computed tomography pulmonary angiography (CTPA). Agenix said early data was "very encouraging and meet or exceed our expectations". The study compares the accuracy of Thromboview against CTPA, the most widely used diagnostic imaging modality for pulmonary embolism.

Agenix said Thromboview end user sales would be close to \$US1 billion a year.

Technology transfer plans for production and quality control were being finalized with contract manufacturers for scale up production to support larger trials and commercialization. A clinical and regulatory course for commercial approval of Thromboview is in preparation for submission to the FDA for comment. The plan proposes pivotal and supporting studies and will be submitted within weeks.

Agenix expects comments from the FDA in a few months.

Studies include up to two pivotal phase III studies where accuracy, sensitivity and specificity of Thromboview will be compared to a diagnostic standard, demonstrating performance that is equal to or better than the tools available today.

Agenix said it expected to data would show that Thromboview produced significantly lower radiation exposure to sensitive organs (particularly breast and lung) than CTPA. These studies will encompass several hundred patients and take up to two years.

Two smaller safety studies are planned to run in parallel with the pivotal studies to demonstrate the safety of using Thromboview in patients for whom CTPA is unsuitable due to their inability to tolerate the iodine-based contrast agents used for CT and the ability to use Thromboview to monitor patient progress on therapy.

These trials will provide incremental data to support the use of Thromboview in some of the most significant commercial opportunities.

Agenix said it had been active in exploratory studies across a variety of fields, which serve to build on the reputation of the cornerstone D-dimer antibody, humanised 3B6 (hu3B6).

Agenix was up 1.2 cents or 23.53 percent to 6.3 cents.

IM MEDICAL

IM Medical says preliminary research results from Monash University supporting of Intelliheart for predicting heart disease will be presented at two cardiac conferences. Abstracts covering the interim findings of the research have been accepted for the 56th annual meeting of the Cardiac Society of Australia and New Zealand in Adelaide on August 8-9, 2008 and the European Society of Cardiology Congress in Munich on September 2, 2008.

IM Medical chief executive officer Tommas Bonvino said acceptance of the abstracts by the two groups "showed significant peer acceptance of the direction of the research". "Development of advances in medical technology depends on peer acceptance," Mr Bonvino said.

IM Medical said the Monash research suggested that the risk of heart disease was more than three times greater if they have stiff arteries or poor heart rate variability and could be as important as obesity, high blood pressure and diabetes for predicting heart disease. The company said the healthiest hearts had a variable beat which was diminished in people with heart disease.

Arterial stiffness was measured by analyzing the pulse waveform of the heartbeat. Standard blood pressure tests measure the peak (systolic) and trough (diastolic) of this waveform in the arm, whereas pulse wave analysis looks at measures of arterial stiffness to determine central blood pressure.

Mr Bonvino said Intelliheart was the only widely available screening test which included the tests of heart rate variability and arterial stiffness with a simple, easy-to-use interface and cardiovascular health report.

The Monash research is being performed by Dr Dipak Kotecha, a British physician completing a doctorate of philosophy under the supervision of IM Medical scientific advisor cardiologist Dr David Eccleston and Monash University's Prof Henry Krum.

Final results of the Monash research involving 500 patients will be released in early 2009.

IM Medical fell 0.3 cents or 13.64 percent to 1.9 cents with 13.6 million shares traded

NANOSONICS

Kinetic Investment Partners and associates have become substantial shareholders in Nanosonics with a holding of 10,603,284 shares or 5.44 percent of the company.

Kinetic, of 101 Collins Street, Melbourne, is a registered holder of securities for ANZ Nominees, BNP Paribas, JP Morgan and National Custodian Services.

Kinetic is part of Challenger Financial Services and according to Kinetic's website its principals are Jonathan Findlay, Richard Sharp and Anthony Porto.

The shares were bought in small parcels from May 17, 2007.

Nanosonics fell two cents or 10.53 percent to 17 cents.

CIRCADIAN

Circadian has appointed Carlo Montagner as a non-executive director of the company effective from July 1, 2008.

Circadian said Mr Montagner had recently joined its product development review group and had experience in heading global oncology businesses for chemotherapeutic products including more than 15 years experience in the pharmaceutical industry in the US, EU, Japan and in Australia.

He is a former global head of Schering AG Berlex Labs US oncology business unit and has held positions at Aventis. He is a non-executive director of Alchemia.

ORGANIZATION FOR HUMAN BRAIN MAPPING

Brain imaging scientists from around the world will attend the meeting of the Organization for Human Brain Mapping June 15 to 19, 2008 at the Melbourne Convention Centre.

A media release from the Howard Florey Institute said 1,500 scientists who conduct research using brain mapping technologies will present work from the US, China, Korea, United Kingdom, Germany and Australia.

The chair of the local organizing committee and head of the Howard Florey Institute's Neuroimaging group, Prof Gary Egan, said it was the first time the Organization for Human Brain Mapping had held its annual conference in the Southern Hemisphere.

Neuroimaging leaders who will deliver lectures at the conference, include the director of the Sage Center for the Study of the Mind at the University of California, Santa Barbara Prof Michael Gazzaniga; the director of Neurospin, France Dr Denis LeBihan; professor of radiology and director of Neuroimaging at the Center for Advanced Imaging at West Virginia University Prof Aina Puce; and the head of the anatomy and neurobiology department at Washington University, St Louis Prof David C Van Essen.

Prof Egan said Melbourne was "home to some of the world's best neuroscientists, with leading research groups at the Howard Florey Institute, Brain Research Institute, Mental Health Research Institute, Brain Sciences Institute at Swinburne University and the Centre for Neuroscience at the University of Melbourne".

"Meetings such as this one are crucial so we can share ideas and build collaborations with colleagues from around Australia and the world," Prof Egan said.

"It's also a great opportunity to showcase Melbourne's talented brain mapping scientists and present their innovative research," he said.

The meeting focuses on neuroscience and applications of these imaging techniques to study sensory and motor systems, vision, attention, memory, and language in normal and pathological states. Theoretical and methodological issues are a central component as they enable and inform these neuroscience endeavours.

The meeting is supported by the Howard Florey Institute, Siemens, GE Healthcare, Philips and Brain Innovation.