



Biotech Daily

Friday September 3, 2010

Daily news on ASX-listed biotechnology companies

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- * **GBS VENTURES: BUILDING AUSTRALIAN MEDICAL TECHNOLOGIES**
- * **TWO MORE INSURERS TAKES IMPEDIMED'S L-DEX TO 23m AMERICANS**
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- * **S&P DROPS BIOTA FROM ASX200**
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- * **WILSON HTM INCREASES BUT DILUTED TO 7% OF IMPEDIMED**
- * **CALCULATION ERROR HALTS HEALTHLINX DRAW DOWN ONE MONTH**

MARKET REPORT

The Australian stock market edged up 0.19 percent on Friday September 3, 2010 with the S&P ASX 200 up 8.5 points to 4541.2. Thirteen of the Biotech Daily Top 40 stocks were up, 13 fell, nine traded unchanged and five were untraded.

Prana was best, up one cent or eight percent to 13.5 cents with 85,085 shares traded.

Bionomics, Heartware and Phosphagenics climbed more than seven percent; Tissue Therapies was up 5.1 percent; Mesoblast was up 4.3 percent; Viralytics was up 3.1 percent; Cathrx rose 2.9 percent; with Alchemia, Circadian, Impedimed and Prima up more than one percent.

Genetic Technologies led the falls, down 0.4 cents or 13.3 percent to 2.6 cents with 140,140 shares traded.

Virax lost 6.9 percent; Living Cell and Phylogica fell five percent or more; Biota, Clinuvel and Patrys were down more than four percent; Nanosonics lost 3.2 percent; LBT and Sirtex shed more than two percent; with Starpharma down 1.03 percent.

GBS VENTURE PARTNERS

Australia's leading boutique venture capital company has more fingers in more pies than principal Dr Geoff Brooke can recall.

Discussing the history and development of GBS from its 1997 creation as part of Rothschild Bioscience Managers, in the GBS board room five floors above the Paris End of Collins Street, Geoff Brooke occasionally says "check the website" to see which companies are recipients of his and Brigitte Smith's company's considerable funds.

The ASX-listed companies include Chemgenex, Cogstate and Sunshine Heart. Biotech Daily notes that Cogstate is the only company related to former Coalition Health Minister Dr Michael Wooldridge to make money and is the only one with GBS involvement.

GBS has supported Alchemia, Amrad, Bionomics, Peplin and Pharmaxis, but no longer has investments in those companies. Among the private and public unlisted companies GBS continues to support are Hatchtech, Spinifex, Chemgenex spin-out Verve and Xenome. Checking the GBS website, Biotech Daily found a further 20 companies, including several US-based companies, which we did not previously know.

At 54, Geoff Brooke is very reluctant to talk about his personal background, but allows that he grew up in a "musical entrepreneurial family" in Middle Park and started school at Glenferrie State School. He says his move to one of Melbourne's leading private schools came as a surprise from his parents, the day before he was due to start.

Geoff says that as a child he was well aware that the local doctor bought a new white Jaguar each year and implies it was no accident that he ended up studying medicine at the University of Melbourne. He sat next to another young would-be medico, Brian McNamee and they have been friends ever since.

The young Dr Brooke enjoyed his residency at Melbourne's St Vincent's Hospital, working in cardiac surgery, anaesthetics and intensive care.

Wondering "what else was there outside the medical channel" Geoff took a year off went to Europe and enrolled in an MBA at Lausanne in Switzerland "and that just changed my world, my options".

"The day I walked into the business school was the day I stopped practicing [Medicine]," Dr Brooke says, but he keeps his registration current.

Initially he thought he would run a few clinics to better manage the part of medical practices that doctors aren't very good at. But job offers came including the offer he didn't take up as an equities trader with Salomon Brothers in London.

Geoff worked with Roger Buckeridge in Melbourne for about five years and in that time did a couple of deals with Johnson & Johnson Development Corp and told them he wanted to get experience in the US venture world and they said they wanted an East Coast venture seed fund which became Medvest.

The Medvest office was in Washington DC, specifically sited near the National Institutes of Health.

“We did lots of little startups – I was one of the founders of Allos Therapeutics an oncology company now worth more than \$US500 million. I did other deals including a couple that were great successes. They were pretty good investments.”

At the end of 1996 Geoff Brooke was hired by Jeremy Curnock Cook at Rothschild to run a biotechnology venture business in Australia – Rothschild Bioscience Managers which started with \$20 million. Investments included Amrad and seed funding with Fauldings for Bionomics.

Along the way Geoff hired Brigitte Smith into Rothschild. She already had 10 years experience in business strategy and management of start-ups, including several years at the strategic management consulting firm Bain & Co.

Brigitte came with a Bachelor of Chemical Engineering from the University of Melbourne and a Master of Business Administration from Harvard. She is also a Fulbright Scholar with a Masters of International Relations from the Fletcher School of Law and Diplomacy in Boston.

Together Geoff and Brigitte have created a formidable office of talented and very highly qualified staff, including Dr Andrew Baker, Dr Joshua Funder, Ben Gust and Dr Steve Gourlay.

“About 2000, Rothschild didn’t want to do funds management anymore and we had the chance to take Rothschild Bioscience Managers out of Rothschild.”

“Then in 1998 the [Federal Government Innovation Investment Fund] program was created and we raised \$42.5 million with the government contributing two-thirds.

“In 2001 we raised our second Australia-only fund of \$65 million, primarily raised from the industry superannuation funds and in between the two raised funds with a Federal Government pre-seed fund.”

It was also in 2001 that Geoff Brooke and Brigitte Smith combined their initials to create the name now synonymous with serious investment in Australian biotechnology.

“Our strategy was no different then to now,” Geoff says, proud that the size of the fund has increased with a \$150 million fund in 2005 and a more recent raising of \$122.5 million in 2009 with the market effectively at bottom. “A lot” of the funds from the 2009 round are still available for the right companies.

“The strategy is to invest only in healthcare, with 45 percent in pharmaceuticals, 45 percent in medical devices and the remainder in a mixture of other medical related technologies, like Cogstate, AI Medics and Applied Physiology (see the website).”

Geoff Brooke describes the Sydney-based AI Medics technology as a non-invasive hypoglycaemia monitor particularly targeted at children. The technology senses pulse and electrocardiogram data and can detect trends to alert parents, particularly at night.

“The aim is to go into partnership and together provide capital and our expertise to grow them from just an idea or like Peplin take them to phase III trials.”

Geoff says GBS Ventures started with in vitro and in vivo level companies but “now we can invest in clinical trials with \$US30 million raisings”.

“We work with these companies for three to five years and then do an orderly exit, so we don’t affect the stock price.

“We take at least one board seat and are on the audit committee and remuneration committee.

“We help with introductions to stock brokers and analysts and help with recruitment.

“We’re as involved as you can be from a board point of view. We’re very actively working with the companies in our portfolios.

“It’s an extremely tough environment at the moment, but we still have 50 to 60 percent of the \$122.5 million fund.”

Geoff Brooke speaks very enthusiastically about his companies, especially Chemgenex and Sunshine Heart and gives great credit to the team he and Brigitte have built.

Asked where he sees GBS in a decade’s time he says: “Our plan is that it will keep on trucking and be no different. It won’t become an investment bank or an advisory service.

“We’ll continue to help people start and build companies based on Australian medical technology.”

* Dr Geoff Brooke has never owned a Jaguar, white or otherwise.

IMPEDIMED

Impedimed has added two more US “managed care organizations” to support the reimbursement of its L-Dex lymphoedema test for breast cancer patients.

Impedimed said Encore Health Network and Three Rivers Provider Network were “preferred provider organizations” under contract with major US healthcare insurers to provide healthcare services to more than 10 million members.

Last month Impedimed announced the first two preferred provider organizations to approve reimbursement for the use of the L-Dex test. (BD: Aug 25, 30, 2010) saying that National Preferred Provider Network had 3.5 million members and Integrated Health Plan had more than 10 million

Impedimed chief executive officer Greg Brown said that “with so many payers and providers in the US healthcare system, each contract with managed care organizations and each coverage statement with health insurers, builds towards effective reimbursement for L-Dex testing in the US market”.

Mr Brown said Encore was focused in the Midwest US while Three Rivers was a national network.

Impedimed said it was continuing discussions with a variety of managed care organizations, public and private health insurance providers and contracted provider networks to provide medical services.

Impedimed was up 1.5 cents or two percent to 78 cents.

TYRIAN DIAGNOSTICS

Tyrian says the US Public Health Research Institute's TB Centre has validated its TB diagnostic marker in a molecular diagnostic test for active tuberculosis.

Tyrian said it had developed an assay using existing molecular technology for direct detection of its lead tuberculosis (TB) diagnostic marker in sputum samples.

The company said that the performance study analyzed 33 clinical sputum samples positive for active TB infection and showed that Tyrian's RNA marker had greater sensitivity than the current gold standard marker (16S RNA) for diagnosis of active TB.

Tyrian said its assay was specific for detection of *Mycobacterium tuberculosis* over other disease-causing bacteria including *Mycobacterium avium* - a strain commonly associated with HIV/TB coinfection.

The company quoted the director of the New Jersey-based Public Health Research Institute's TB Centre Dr Barry Kreiswirth, who co-ordinated the US study, saying "Tyrian's marker is an excellent candidate for accurate and specific diagnosis of TB".

"The marker is conserved across different clinical strains of TB, including multi-drug resistant strains, and should be present in all individuals positive for active TB," Dr Kreiswirth said.

"The potential advantage of this marker over most other molecular markers for TB is that it appears to be present at high levels in all strains evaluated," Dr Kreiswirth said.

Tyrian said that in 2009 it first demonstrated that its proprietary TB marker was detectable at the molecular level in TB-positive sputum and not detected in TB-negative sputum samples.

The company said that the results of this study, using a newly collected set of clinical samples, confirmed that Tyrian's RNA marker had competitive sensitivity to the industry standard.

Tyrian said that the International Searching Authority had issued a positive report on Tyrian's patent for the marker, saying that the invention was considered to be novel and inventive over prior art.

Tyrian chief executive officer Dr Jenny Harry said there was "an urgent need for reliable TB diagnostic markers and the outcomes from this study suggest that the Tyrian marker may help to fill this gap".

"We are now seeking to partner this [intellectual property] with a company that has a suitable molecular diagnostic platform for deployment in TB testing environments, to further develop a test for active TB," Dr Harry said.

Tyrian said the global market for molecular diagnostics exceeded \$2 billion, making it the fourth largest diagnostics segment and the most rapidly growing, with infectious disease testing accounting for the majority of sales.

The company said that in 2006, more than \$US120 million was spent on molecular testing for the diagnosis of active TB.

This market is poised to increase significantly as improvements in molecular technologies, as well as a continued reduction in the cost of test consumables, make molecular testing increasingly accessible in TB clinical settings.

Tyrian said TB was an extremely slow growing bacterium and was notoriously difficult to detect during the early stages of active infection when the disease becomes contagious. The company said the World Health Organisation's estimates showed that more than 2 billion people were infected with TB and with 9.27 million new cases and 1.77 million deaths equating to 4,500 deaths per day in 2007 alone, the continuing spread of TB was a very real threat. To minimize the spread of the disease, early detection is critical and therefore sensitivity in a TB diagnostic test is imperative.

Tyrian was up 0.1 cents or 8.3 percent to 1.3 cents with 6.4 million shares traded.

PRANA BIOTECHNOLOGY

Prana says co-founder Prof Ashley Bush has published an article in 'Cell' showing that iron accumulation contributes to neuronal death in the Alzheimer's brain.

Prana said Prof Bush's research, in conjunction with the University of Melbourne and Harvard Medical School was published in an article in Cell entitled: 'Iron-export ferroxidase activity of beta-amyloid precursor protein is inhibited by zinc in Alzheimer's Disease' which was scheduled for the September 17, 2010 edition of the research journal. An abstract is at: <https://www.cell.com/abstract/S0092-8674%2810%2900938-4>.

Prana said its therapeutic strategy was to restore normal metal levels and distribution in the brain, such as zinc, which typically changes with aging and is exacerbated in Alzheimer's disease, resulting in reduced synaptic function and beta-amyloid reacting with the metals to form toxic oligomers that impair cognition.

Prana said the Cell publication added a third metal-dependent event, iron accumulation, which if left untreated, contributes to neuronal death in the Alzheimer's brain.

New York's Mount Sinai School of Medicine Dr Sam Gandy was quoted by Prana saying the report provided "a major advance in deciphering the underlying causes of Alzheimer's disease while at the same time pointing us toward a new and exciting strategy for treating or preventing the disease with a drug such as [Prana's] PBT2, which affects brain metals." Prana said the article showed that the source of beta-amyloid, the beta-amyloid precursor protein (APP), played a previously unknown critical role in exporting iron out of neurons. If APP fails to carry out this role, iron builds up in the neurons contributing to oxidative stress, neurofibrillary tangle formation and ultimately neuronal cell death.

Prana said its scientists demonstrated that synaptic zinc can prevent APP from performing its normal iron transporting role.

Synaptic zinc levels and distribution changes in the Alzheimer's diseased brain, because zinc released into the synaptic space is drawn into the beta-amyloid that forms plaques in the synapse, the company said. This was problematic for the brain because neurons were deprived of zinc required for neurotransmission and the zinc induced toxic beta-amyloid oligomer formation.

Prana said the zinc caught up in the beta-amyloid couldn't be exchanged or transported to the APP, impeding its ability to prevent iron buildup in neurons and the maintenance of correct zinc levels in the brain was vital for neuronal function and cognition.

Prana said PBT2 acted as a zinc chaperone transporting zinc from the brain beta-amyloid deposits and returns it to neurons to facilitate normal neurotransmission.

The company said that PBT2 had been shown to have important neuroprotective and neurotrophic properties, consistent with its ability to prevent zinc from impairing the ability of APP to prevent iron overload.

Prana co-founding scientist and co-author of the Cell paper Dr Rudolph Tanzi said that "these findings are timely in distinguishing PBT2's unique mechanism of action from the recent clinical trial failures that target amyloid but did not address the need to restore synaptic metal homeostasis."

Prana said PBT2 has completed a phase IIa clinical trial where it significantly increased the cognitive performance Alzheimer's disease patients after 12 weeks of treatment.

Prana's executive chairman Geoffrey Kempler said the report was "the most comprehensive validation to date of the importance of brain metals, which are the key therapeutic target of PBT2, in treating Alzheimer's disease".

"These new findings strengthen the expectation that PBT2 will reverse brain damage in Alzheimer's disease and raise hopes that it will achieve further success in the next stage of clinical trials," Mr Kempler said.

Prana was up one cent or eight percent to 13.5 cents.

[HEALTHLINX](#)

Healthlinx says distribution partner INEX Innovation Exchange launched its Ovplex ovarian cancer test in Singapore yesterday.

Healthlinx said INEX would have the exclusive rights to market, sell and distribute Ovplex for 10 years and Singapore would be the platform to launch into the region including India, Malaysia, Thailand, Indonesia and Vietnam.

The company said Ovplex was available in Australia and the United Kingdom, with Singapore the third country to sell the test.

Healthling managing director Nick Gatsios said the Ovplex test was available through Quest Laboratories, the largest independent non-hospital based laboratory in Singapore, at the cost of \$S300 (\$A245) per test.

The company said the test is expected to be available for doctors to administer at major hospitals and clinics island-wide by the end of the year.

Healthlinx said that ovarian cancer was the most common gynaecological cancer in Singapore and a rapidly growing problem throughout Asia and INEX would donate \$S4 to the Singapore Cancer Society for every Ovplex test performed.

Healthlinx fell 1.9 cents or 18.1 percent to 8.6 cents with one million shares traded.

[CBIO](#)

CBio says it has recruited all 150 patients for its phase II trial of XToll for rheumatoid arthritis "four weeks ahead of schedule".

CBio said accelerated recruitment strategies, including the use of clinical trial sites in Central and Eastern Europe in addition to existing Australian and New Zealand sites, achieved the early recruitment.

CBio managing director Jason Yeates said that "achieving full recruitment early allows us to receive completed clinical reports ahead of schedule which allows us to provide these reports and the clinical trial data to multinational pharmaceutical companies earlier than expected," Mr Yeates said.

Last month CBio said it hoped to have results by July 2011 but needed to find a further \$7 million to fund the completion of the trial (BD: Aug 25, 2010).

CBio fell one cent or 4.6 percent to 21 cents.

[BIOTA](#)

Standard & Poors has dropped Biota from the ASX200 in its quarterly indices rebalance. Biota's share price and market capitalization fell significantly following the April news that it expected a royalty payment of \$9.7 million from Glaxosmithkline for \$138 million sales of Relenza in the three months to March 31, 2010 (BD: Apr 29, 2010).

On April 29, Biota's share price fell as much as 45.5 cents or 23.8 percent to \$1.46.

There were no other biotechnology companies affected by the update.

Today Biota fell four cents or 4.3 percent to 89.5 cents with 1.4 million shares traded.

[SIRTEX MEDICAL](#)

Platypus Asset Management has increased its substantial shareholding in Sirtex from 2,854,200 shares (5.12%) to 3,464,356 shares (6.21%).

The Sydney-based Platypus said it acquired 610,166 shares for \$3,055,385 or an average price of \$5.01 a share.

Sirtex fell 14 cents or 2.8 percent to \$4.86.

IMPEDIMED

Wilson HTM and associates increased their investment in Impedimed from 9,406,075 shares (8.65%) to 9,861,372 shares but were diluted to 7.25 percent following the company's capital raisings.

Impedimed raised a total of \$7.5 million through an entitlements issue earlier this year (BD: May 12, 2010).

HEALTHLINX

Healthlinx has told the ASX that "due to a material calculation error" it breached Listing Rule 7.1 relating to issuing equity securities without security holder approval.

The company said it provided the ASX with an undertaking not to issue any equity securities without security holder approval until September 2, 2011, unless the issue comes within an exemption in listing rule 7.2.

Healthlinx said it was prevented from making any further drawdowns on its convertible loan agreement with Springtree Special Opportunities Fund "until after approval is obtained at the company annual general meeting scheduled for October 11, 2010".

Healthlinx said Springtree had agreed to defer further drawdowns or conversions until after approval is obtained at the meeting, without penalty to Healthlinx.