



# Biotech Daily

Monday January 20, 2014

*Daily news on ASX-listed biotechnology companies*

## **VALE ALAN WOODS 1926 - 2014**

- \* ASX DOWN, BIOTECH UP: QRX UP 13%, PRIMA DOWN 18.5%**
- \* WEHI TEST EXPEDITES COELIAC DIAGNOSIS**
- \* COGSTATE COGNIGRAM 'EFFECTIVE TEST FOR ALZHEIMER'S DISEASE'**
- \* ANGEL INVESTOR ALAN WOODS**
- \* CORRECTION: CIRCADIAN**
- \* IMMURON REQUESTS CAPITAL RAISING TRADING HALT**
- \* PROFS CHRISTOPH ZIELINSKI, URSULA WIEDERMANN ADVISE IMUGENE**
- \* SUDA APPOINTS DR CAROL WORTH TECHNICAL MANAGER**

## **MARKET REPORT**

The Australian stock market fell 0.21 percent on Monday January 20, 2014 with the S&P ASX 200 down 10.9 points to 5,295.0 points.

Sixteen of the Biotech Daily Top 40 stocks were up, 14 fell, seven traded unchanged and three were untraded. All three Big Caps fell.

QRX was the best, up 11 cents or 13.25 percent to 94 cents, with 550,838 shares traded.

Anteo and Circadian climbed more than eight percent; Antisense and Genetic Technologies were up more than seven percent; GI Dynamics, Prana and Tissue Therapies were up more than six percent; IDT improved 5.1 percent; Pharmaxis and Psivida were up more than four percent; Cellmid was up 3.45 percent; Compumedics rose 2.6 percent; with Alchemia, Benitec and Bionomics up more than one percent.

Prima led the falls, down 1.2 cents or 18.5 percent to 5.3 cents with 45.4 million shares traded.

Patrys lost 8.3 percent to 4.4 cents with 22.9 million shares traded; Clinuvel fell five percent; Neuren fell 4.55 percent; Admedus, Avita, Oncosil and Universal Biosensors were down more than three percent; Resmed and Starpharma shed more than two percent; Cochlear, Living Cell, Mesoblast, Reva and Sirtex were down more than one percent; with Acrux and CSL down by less than one percent.

## THE WALTER AND ELIZA HALL INSTITUTE FOR MEDICAL RESEARCH

The Walter and Eliza Hall Institute says its researchers are developing a blood test to rapidly and accurately diagnose coeliac disease without prolonged gluten exposure. The Institute's head of coeliac research Dr Jason Tye-Din said the test gave a result within 24 hours and preliminary findings indicated it could accurately detect coeliac disease. "Current diagnosis of coeliac disease is limited by the need for intestinal biopsies and patients to be eating gluten," Dr Tye-Din said. "For the many people who follow gluten-free diets without a formal diagnosis, reliable testing for coeliac disease requires them to consume gluten again, which is often unpleasant and difficult."

WEHI said that with colleagues from the Boston, Massachusetts-based Immusant it studied the blood test in 48 participants, with results published in an article entitled 'Ex-vivo whole blood secretion of interferon gamma (IFN-gamma) and IFN-gamma-inducible protein-10 measured by enzyme-linked immunosorbent assay are as sensitive as IFN-gamma enzyme-linked immunospot for the detection of gluten-reactive T-cells in human leucocyte antigen (HLA)-DQ2.5+-associated coeliac disease' in the journal Clinical & Experimental Immunology.

An abstract of the study is at: <http://onlinelibrary.wiley.com/doi/10.1111/cei.12232/abstract>

"Our findings reveal this novel blood test is accurate after only three days of gluten consumption, not the several weeks or months traditionally required to make a diagnosis using intestinal biopsies," Dr Tye-Din said.

WEHI said that coeliac disease was caused by an abnormal T-cell immune reaction to gluten in the diet, leading to damage to the small intestine and could cause digestive symptoms such as nausea, vomiting, bloating and diarrhoea, as well as lethargy, anaemia, headaches and weight loss.

The Institute said that one in 60 women and one in 80 men in Australia had coeliac disease, but four out of five remain undiagnosed and the disease could lead to long-term complications such as malnutrition, osteoporosis, infertility, pregnancy issues, liver failure, infection and cancer.

Dr Tye-Din said the cytokine release test measured the T-cell response to gluten after three days of consumption and a positive response was "highly predictive of coeliac disease".

"With this test, we were able to detect a T-cell response in the majority of study participants known to have coeliac disease and importantly, the test was negative in all of the patients who did not have coeliac disease, even though they followed a gluten-free diet and thought gluten was the cause of their symptoms," Dr Tye-Din said.

Dr Tye-Din said that many gluten-sensitive people found it distressing to reintroduce gluten into their diet in order to be tested properly for coeliac disease and fearful of unpleasant symptoms stopped prematurely or avoided testing altogether.

"A test that simplifies diagnosis for patients is likely to significantly enhance disease detection," Dr Tye-Din said. "This new diagnostic approach is encouraging and we hope that larger studies can validate these findings and establish its role in the diagnosis of coeliac disease, with the possibility of avoiding intestinal biopsies for diagnosis altogether."

Immusant chief scientific officer Dr Bob Anderson, who developed the test at WEHI when he was the Institute's head of coeliac research said the blood test could also assist in the monitoring of a therapeutic vaccine for coeliac disease.

"This is an important step toward a tool that could monitor changes in the small population of circulating T cells responsible for coeliac disease when using treatments intended to restore tolerance to gluten, such as Nexvax2, the compound currently being developed by Immusant," Dr Anderson said.

## COGSTATE, FLOREY INSTITUTE OF NEUROSCIENCE AND MENTAL HEALTH

Cogstate says that Florey Institute of Neuroscience research shows that its Cognigram tests can detect early signs of mild cognitive impairment and Alzheimer's disease.

Cogstate said that Cognigram was available to primary care physicians in Canada through Merck Canada to provide a point-of-care dementia test.

The company said that more than 580 primary care physicians had registered to use Cognigram with 20 testing centres operating and it hoped to expand the territories using the test.

Cogstate said that to evaluate functional brain health, physicians need to observe performance on several key domains and tests of attention and reaction time were used to assess the state of sub-cortical brain regions including the basal ganglia as well as cortical regions such as the prefrontal and parietal cortices.

The company said that learning and working memory depended on normal functioning of the hippocampus and temporal lobe for pattern separation and prefrontal cortex and anterior cingulate for working memory.

Cogstate said its research team led by chief science officer Dr Paul Maruff grouped the two domains of attention and reaction and learning and memory into composite scores to compare test results with traditional hallmarks of mild cognitive impairment and Alzheimer's disease.

"The presence of a relatively greater impairment in cognitive functions dependent on cortical and limbic brain regions, that is learning and working memory, with relatively subtle impairment in motor and attention functions is consistent with neuropsychological models of [Alzheimer's disease] which emphasize that cognitive impairment characteristic of both prodromal and clinically classified [Alzheimer's disease] is disruption to memory and executive function," Dr Maruff said.

Cogstate said that to test the hypothesis the team recruited volunteers from the Australian Imaging, Biomarkers and Lifestyle Study, dividing them into three groups; 653 healthy adults, 107 with amnesic mild cognitive impairment, where the primary symptom was memory loss, and 44 with Alzheimer's disease and all were asked to complete the four Cognigram tests with the speed and accuracy of the results recorded.

The company said that the tests used a deck of playing cards with patients answering yes-or-no questions about what and when cards were shown to them.

Cogstate said that the results showed that both the mild cognitive impairment and Alzheimer's disease groups performed significantly worse on both composites than the healthy adults and the Alzheimer's disease group's learning and memory score was significantly lower than the mild cognitive impairment group, demonstrating the presence and progression of the memory decline caused by the disease.

The company said that the Cognigram testing was repeated four times in three months and showed statistically similar results across all groups.

The Florey Institute research, entitled 'Clinical utility of the Cogstate brief battery in identifying cognitive impairment in mild cognitive impairment and Alzheimer's disease' was published in BMC Psychology and is at: <http://www.biomedcentral.com/2050-7283/1/30>.

"We are excited about the results of this study," said Dr Maruff said.

"The Cogstate brief battery has been found to be sensitive to amyloid related cognitive change in many trials," Dr Maruff said.

"This study shows for the first time, that a version of the test designed specifically for clinical practice, the Cognigram battery, has excellent sensitivity and specificity to mild cognitive impairment," Dr Maruff said.

Cogstate was unchanged at 38 cents.

## ALAN WOODS

A founding father of angel capital investment in the Australian biotechnology industry, Alan Woods, died on January 2, 2014.

Myostin Therapeutics managing director Dr Kevin Healey told Biotech Daily that Mr Woods was a mentor and friend for many years.

Dr Healey said Mr Woods was a successful entrepreneur and together with family members built David Bull Laboratories which was later sold to Faulding.

He said Mr Woods “had an unusual mix of technical understanding, commercial savvy and vision which led him to become a founding investor in Biota, one of Australia’s earliest biotech start-ups”.

Dr Healey said Mr Woods not only invested in the sector but supported other entrepreneurs and was crucial in the establishment of Medica Holdings, a listed pooled development fund which went on to establish several other biotechnology companies.

“Alan was a conservative investor and for him to back Australian biotechnology the way he did provided a major endorsement to entrepreneurs and Australian research,” Dr Healey said.

“Alan always remained close as a shareholder, supporter and friend,” Dr Healey said.

Former Queensland chief scientist and co-founding director of the University of Queensland’s Institute of Molecular Bioscience Prof Peter Andrews said Mr Woods was “the first angel investor I ever encountered and by far the most angelic”.

“He understood the neuraminidase story at a time when big pharma were all rejecting it out of hand, invested his own money in Biota and convinced others to do the same, negotiated a win-win with Glaxo at its most arrogant, dealt effectively with both Machiavellian managers and unworldly academics, found consensus among the many and varied views of a thoroughly opinionated board (I was one of them) and throughout it all remained calm, unflappable and charming to all concerned,” Prof Andrews said.

“He was a great man,” Prof Andrew said.

## CIRCADIAN TECHNOLOGIES

Last night’s Special Summer Catch-Up Edition incorrectly reported that Circadian subsidiary Opthea had licenced OPT-302 (formerly VEX-300) a soluble form of vascular endothelial growth factor-3 (VEGFR-3) to the Geneva, Switzerland-based Selexis SA for wet age-related macular degeneration.

Circadian has told Biotech Daily that Opthea had licenced the use of Selexis’ Chinese hamster ovary-M (CHO-M) for the production of Opthea’s OPT-302 for wet age-related macular degeneration.

The mistake was made by the sub-editor who had not quite recovered from Summer Holiday mode and has been suitable admonished.

Circadian was up two cents or 8.9 percent to 24.5 cents.

## IMMURON

Immuron has requested a trading halt pending the release of an announcement “in respect of a proposed capital raising”.

Trading will resume on January 22, 2014 or on an earlier announcement.

Immuron last traded at 1.1 cents.

## IMUGENE

Imugene says it has appointed Prof Christoph Zielinski and Prof Ursula Wiedermann to its scientific advisory board.

Imugene said that Prof Zielinski was the Medical University of Vienna’s director of clinical oncology and chairman of the Department of Medicine.

The company said that Prof Zielinski had published more than 420 original research papers and reviews in peer-reviewed journals.

Imugene said that Prof Wiedermann was the Medical University of Vienna’s professor of vaccinology and the head of the Institute of Specific Prophylaxis and Tropical Medicine and a visiting professor at the University in Göteborg, Sweden with more than 100 peer-reviewed publications.

The company said that Prof Wiedermann was the principal Investigator for the preclinical development of HER-Vaxx and performed the phase I trial of HER-Vaxx for metastatic breast cancer patients with Prof Zielinski’s division.

Imugene said that Prof Wiedermann led the design of the phase II study for gastric cancer due to commence in 2015.

Imugene executive director Dr Nick Ede said that Prof Zielinski and Prof Wiedermann were “both internationally recognized as leaders in oncology, vaccinology and immunology”.

“Together with their colleagues, both have been instrumental in the advancement of Imugene’s immunotherapy candidate HER-Vaxx,” Dr Ede said.

Imugene fell 0.1 cents or five percent to 1.9 cents with 1.1 million shares traded.

## SUDA

Suda says it has appointed Dr Carol Worth as technical manager responsible for optimizing pharmaceutical reformulation activities.

Suda said that Dr Worth had been working in drug delivery systems for more than 25 years and as a development chemist liaised between companies in the US, UK and Asia to develop oral formulations of injectable peptide hormones.

The company said that Dr Worth had been involved in the development of novel anti-cancer drugs and, most recently, topical pain relief formulations and had “extensive experience in the setting up and running of good manufacturing practice-accredited laboratories and the development of robust products suitable for GMP manufacturing.

Suda fell 0.1 cents or 1.3 percent to 7.6 cents.