



Biotech Daily

Monday May 23, 2022

Daily news on ASX-listed biotechnology companies

- * **ASX, BIOTECH EVEN: IMUGENE UP 12.5%; ACTINOGEN DOWN 10%**
- * **QUT: \$282k US GRANT TO DISRUPT EMERGING VIRUSES**
- * **LIVING CELL, OPTICELLAI \$360k NTCCELL A-I DEAL**
- * **TOTAL BRAIN \$2.4m R&D TAX INCENTIVE PAYS LOAN**
- * **CRESO, DR PICKLES TATTOO HERBAL SALVE DEAL**
- * **EMYRIA REQUESTS 'EMD-RX5 PHASE I TRIAL RESULTS' TRADING HALT**
- * **4D APPOINTS DIRECTOR JOHN LIVINGSTON 'STRATEGIST' ON \$100k**

MARKET REPORT

The Australian stock market edged up 0.05 percent on Monday May 23, 2022, with the ASX200 up 3.3 points to 7,148.9 points.

Eighteen of the Biotech Daily Top 40 stocks were up, 18 fell, three traded unchanged and one was untraded.

Imugene was the best, on chair Paul Hopper's letter to shareholders, up 2.5 cents or 12.5 percent to 22.5 cents, with 52.5 million shares traded.

Prescient climbed 6.45 percent; Amplia and Universal Biosensors were up four percent or more; Antisense, Clinuvel and Dimerix were up more than three percent; Nanosonics, Nova Eye and Pharmaxis rose more than two percent; Atomo, Cochlear, Cynata, Immutep, Kazia, Micro-X and Starpharma were up more than one percent; with Pro Medicus and Telix up by less than one percent.

Actinogen led the falls, down 0.8 cents or 10.3 percent to seven cents, with 1.5 million shares traded. Resonance retreated 8.9 percent; Polynovo fell 7.55 percent; Genetic Signatures lost 6.9 percent; Next Science, Paradigm, Patrys and Volpara fell more than four percent; Alcidion, Medical Developments and Neuren were down three percent or more; Emvision, Impedimed, Opthea and Orthocell shed more than two percent; Mesoblast and Oncosil were down more than one percent; with Avita, CSL and Resmed down by less than one percent.

QUEENSLAND UNIVERSITY OF TECHNOLOGY

Queensland University of Technology says it has a \$US200,000 (\$A282,061) grant from the US Department of Defense to prevent the spread of emerging viruses.

Brisbane's Queensland University of Technology (QUT) said the grant was part of the US Department of Defense Discovery Award, under the Congressionally Directed Medical Research Programs, and would allow it to "develop a stop-gap therapeutic ... [to] lessen a new virus's impact on people while society waits for a vaccine to be developed".

The University said that it would use the grant to investigate a new method to prevent emerging viruses like Covid-19 and Monkeypox from being able to spread through human cells during pandemics.

QUT said the initial research would work on proof-of-concept, with Dr Nathan Boase as chief investigator, working with QUT's Centre for Materials Science co-director Prof Kathryn Fairfull-Smith, Prof Leonie Barner and the University of Queensland's Dr Kristy Shorty.

"This project is the first step towards the development of broad-spectrum anti-viral therapeutics that can be stockpiled, at low cost, and rapidly deployed to fill the gap between the emergence of a new viral disease and the development of an effective vaccine," Dr Boase said.

"These new therapies are needed to protect civilian populations and to maintain operational preparedness of military forces," Dr Boase said.

"When a new virus emerges like Covid-19 did, we are woefully underprepared to protect ourselves from it," Dr Boase said.

"Even with rapid development it still took 11 months to develop a vaccine for Covid-19," Dr Boase said.

"With thousands of mammalian viruses not yet discovered, and a continued push to globalization, the unfortunate reality is that future viral pandemics are inevitable," Dr Boase said.

"The current emergence of Monkey Pox, as we are only just recovering from the Covid-19 pandemic, highlights the need for these rapid therapeutics," Dr Boase said.

Dr Boase said that vaccines targeted a specific virus, but his group was targeting something that was common across all enveloped virus types - a wide virus class that includes HIV, influenza, severe acute respiratory syndrome (Sars), human papillomavirus and severe acute respiratory syndrome coronavirus-2 (Sars-Cov-2).

"We are investigating how we can disrupt the membrane - or casing - that surrounds all these viruses and prevent the virus from merging with human cells and spreading through the body," Dr Boase said.

"Specifically, we will synthesize new polymers to bind to virus casings and investigate which polymers are most effective at weakening those casings," Dr Boase said.

Prof Fairfull-Smith said that a novel part of the project was that it was investigating a multi-faceted attack on viral infection that focused on virustatic binding, virucidal deactivation and anti-inflammatory response, which other research programs had not studied.

"We hope that this unique approach will be the key to developing potent therapeutics that treat both the primary viral infection and reduce the damage caused by inflammation," Prof Fairfull-Smith said.

The university's Prof Barner said that the research over the next two years "aimed to produce preliminary findings that would attract more funding from major medical grants".

"We want this initial project to produce the fundamental new scientific knowledge that will allow for the eventual development of a clinical therapeutic that can aid in the defence against emerging viral diseases," Prof Barner said.

LIVING CELL TECHNOLOGIES

Living Cell says it will pay Sydney's Opticellai \$360,000 to use artificial intelligence for NTCell pig brain cell selection and optimization.

Living Cell said the agreement, expected to begin this month and conclude in May 2023, would result in the development of two prototype machines, a trained artificial intelligence (AI) for NTCell optimization and selection requirements, and a final production machine. In March, the company said the University of Technology Sydney would optimize its NTCell encapsulated pig choroid brain cells for a clinical trial in Parkinson's disease in 2024 (BD: Mar 30, 2022).

Today, Living Cell said that the research would "evaluate strategies to ensure the pig choroid plexus cells selected for encapsulation are of optimal quality" and it was expected that AI would be used to "optimize and select high quality encapsulated cells (NTCell) for implantation into the brains of people with Parkinson's disease, as a potential treatment for the disease".

Living Cell said the cost of engineering, software and biological input into the use of artificial intelligence in the manufacture of NTCell was expected to be a maximum of \$360,000 and was based on a number of milestones.

Living Cell executive chair Prof Bernie Tuch said that it was an "exciting step" in the manufacture of NTCell and that the introduction of modern technology would "ensure that the product released for clinical use will be of the highest standard, improving prospects of a successful result".

"Additionally, it will introduce automation into the process, thereby speeding up the selection of the microcapsules to be implanted into each recipient," Prof Tuch said. Living Cell was up 0.05 cents or 10 percent to 0.55 cents.

TOTAL BRAIN

Total Brain says it has received \$2,364,995 from the Australia Tax Office under the Federal Government Research and Development Tax Incentive program.

Total Brain said the rebate related to research and development expenditure for the year to June 30, 2021.

The company said that the incentive would be used to repay in full and extinguish the \$2 million advance from Melbourne's Mitchell Asset Management Pty Ltd.

Total Brain was unchanged at nine cents.

CRESO PHARMA

Creso says it has an agreement with Brisbane's Dr Pickles to commercialize its herb-based tattoo post-care and sunscreen salves in Australia.

Creso said the agreement would commercialize products from its target acquisition company, the Lyons, Colorado-based Sierra Sage Herbs LLC for sale throughout the more than 800 Dr Pickles' tattoo studios in Australia, its electronic commerce database of more than 20,000 customers and its sales network in Australian pharmacies and Woolworths supermarkets.

The company did not disclose the financial details of the deal but said it would "explore the opportunity to bring select products from the Dr Pickles range to North American markets".

Creso managing-director William Lay said the company was "looking forward to working closely with the Dr Pickles team on exploring multiple product and branding opportunities which have the potential to drive sales for both parties".

Creso was up 0.5 cents or 9.6 percent to 5.7 cents with 8.2 million shares traded.

EMYRIA

Emyria has requested a trading halt pending “an announcement in regards to the results from its EMD-RX5 phase I trial”.

Last month, Emyria said it had dosed the first of 12 volunteers in its phase I trial comparing the safety and bioavailability of its 150mg EMD-RX5 cannabidiol (CBD) capsules with 100mg/ml Epidyolex CBD (BD: Apr 7, 2022).

Trading will resume on May 25, 2022 or on an earlier announcement.

Emyria last traded at 30 cents.

4D MEDICAL

4D Medical says that director John Livingston has been appointed as a senior strategist and executive director on \$100,000 a year.

According to Commsec, Mr Livingston was appointed a director in March 2018, prior to the company listing on the ASX.

4D said that Mr Livingston had experience in business strategies, sales and systems in the digital radiology environment and previously was Integral Diagnostics managing-director.

The company said that Mr Livingston would be responsible for driving sales revenue and would representing 4D at conferences and in communications with partners.

4D said that Mr Livingston’s base salary would be \$100,000 a year excluding superannuation with 636,576 options available over three years, pending Australian and New Zealand revenue milestones.

4D fell half a cent or 0.8 percent to 63 cents.