



# Biotech Daily

Monday June 26, 2023

*Daily news on ASX-listed biotechnology companies*

- \* **ASX, BIOTECH DOWN: RESONANCE UP 12.5%; CYNATA DOWN 11.5%**
- \* **FEDERAL \$73m FOR 19 MEDICAL RESEARCH PROJECTS**
- \* **QUEENSLAND UNI DEVELOPS COVID TEST FROM YEAST DUST**
- \* **IAN POTTER \$5m FOR DOHERTY'S CUMMING CENTRE**
- \* **AROVELLA LICENCES NORTH CAROLINA UNI CYTOKINE TECHNOLOGY**
- \* **NYRADA SCRAPS CHOLESTEROL DRUG DUE TO 'ADVERSE EFFECTS'**
- \* **AVITA REJOINS RUSSELL 3000 INDEX**
- \* **REGAL TAKES 20.6% OF OPTHEA**
- \* **WALKER GROUP BELOW 5% IN ATOMO**
- \* **DR JOHN TARRANT, BALMAIN, CADEX TAKE 13.9% OF HEXIMA**

## MARKET REPORT

The Australian stock market fell 0.29 percent on Monday June 26, 2023, with the ASX200 down 20.5 points to 7,078.7 points. Eleven of the Biotech Daily Top 40 stocks were up, 21 fell, seven traded unchanged and one was untraded. All three Big Caps fell.

Resonance was the best, up 0.5 cents or 12.5 percent to 4.5 cents, with 3.3 million shares traded. Universal Biosensors climbed five percent; Impedimed and Paradigm improved more than three percent; Alcidion, Antisense, Nanosonics and Nova Eye were up more than one percent; with Opthea, Pro Medicus and Proteomics up by less than one percent.

Cynata led the falls, down 1.5 cents or 11.5 percent to 11.5 cents, with 562,244 shares traded, followed by Actinogen down 10.9 percent to 4.1 cents with 6.7 million shares traded.

Emvision lost nine percent; Starpharma shed 8.45 percent; 4D Medical and Pharmaxis were down more than six percent; Medical Developments lost 5.4 percent; Imugene and Mesoblast fell more than four percent; Compumedics was down three percent; Amplia and Prescient shed more than two percent; Avita, Next Science, Orthocell, Polynovo, Telix and Volpara were down by more than one percent; with Clinuvel, Cochlear, CSL, Cyclopharm, Neuren and Resmed down by less than one percent.

## FEDERAL GOVERNMENT

The Federal Government says it will provide \$73 million for 19 medical research projects including depression, gut health, cancer treatments and vaccines.

A media release from Federal Health Minister Mark Butler said Advancell Isotopes Pty Ltd and Monash University would each receive the largest amounts of \$9,764,996 for 'Translation of Targeted Alpha Therapies' and 'Catalysing value creation in drug discovery', respectively.

Most of the grants were for \$2 million to \$3 million with a full list at: [www.bit.ly/430qkh5](http://www.bit.ly/430qkh5).

The Government said the projects were funded under the National Critical Research Infrastructure Initiative, a 10-year, \$650 million Australian Government investment from the Medical Research Future Fund which funds facilities, equipment, systems and services that support world-class health and medical research.

"To pursue big ideas and find solutions to complex health problems, our researchers need world-class, state-of-the-art facilities, equipment and technology," Mr Butler said.

## UNIVERSITY OF QUEENSLAND

The University of Queensland says researchers have developed "nano-probes", or synthetic yeast fragments, from baker's yeast that can detect Covid-19.

The University said that the powdery nano-probes developed at its Australian Institute for Bioengineering and Nanotechnology (AIBN) were synthetic yeast fragments which could be deployed at airports, hospitals, stadiums and sewers to detect Covid-19 biomarkers.

The University of Queensland said the study, titled 'A universal reagent for detection of emerging diseases using bio-engineered multi-functional yeast nano-fragments' was published in Nature Nanotechnology, with the full article available at:

<https://www.nature.com/articles/s41565-023-01415-1>.

The University's lead researcher on the program and director of the Centre for Personalized Nanomedicine Prof Matt Trau said the yeast nano-probes could be integrated into current Covid-19 testing platforms.

"Yeast has long been a cheap and abundant ingredient in bread and beer and thanks to its unique chemical properties, it can now be used in diagnostic technologies that rival [polymerase chain reaction] testing for speed and sensitivity," Prof Trau said.

"We often refer to yeasts as bio-factories because they are the oldest industrial micro-organisms," Prof Trau said.

"In this case, we are using the same historically inexpensive and highly scalable food production systems to create a sensor powder that can be deployed in the environment to detect a range of viral threats," Prof Trau said.

The University said fluorescent, electro-chemical or dye-based analysis techniques were used to examine the nano-probes to see if they had been exposed to a virus.

AIBN research fellow Dr Selvakumar Edwardraja said the yeast sensor technology could be genetically programmed to detect specific viral strains, such as the Covid-19 variants Delta and Omicron to identify "which variant a patient has, where it has come from, and what needs to be done to treat it".

Co-author Dr Chris Howard said the cost-effective and easily scalable nature of the yeast nano-probes meant the technology was an accessible tool for pandemic defence.

"If we want to block new and more severe variants from taking hold, we need diagnostic tools that are quick to make and distribute and can be tweaked for a wide range of on-site testing processes," Dr Howard said.

"With yeast being so cheap, this technology could be important for low resource regions of the globe that cannot afford current expensive diagnostic tests," Dr Howard said.

## DOHERTY INSTITUTE FOR INFECTION AND IMMUNITY

The Doherty Institute says the Ian Potter Foundation has provided \$5 million to its Cumming Centre to develop pandemic therapeutics.

Last year, the Victoria Government said it would provide \$75 million with Karori Capital chair Geoffrey Cumming providing \$250 million for a pandemic preparedness and therapeutics centre at the Doherty Institute (BD: Aug 31, 2022).

Today, the Doherty Institute said that the Ian Potter Foundation's grant was the first philanthropic donation received towards reaching the \$1.25 billion funding target for the Cumming Global Centre for Pandemic Therapeutics.

Cumming Centre director Prof Sharon Lewin thanked the Ian Potter Foundation for its "generous contribution" and said, "effective and timely delivery of therapeutics has the potential to transform how the next pandemic is managed".

"We have an ambitious 20-year research program to fill this global gap and develop novel treatment solutions that can be rapidly adapted to a new pathogen within much shorter timeframes than currently possible," Prof Lewin said.

"Therapeutics are critically important in preventing the progression of infections to severe disease, and ultimately in saving lives, but requires significant investment," Prof Lewin said.

The Doherty Institute said the Centre would be established in the \$650 million Australian Institute for Infectious Disease announced by the Victorian Government in partnership with the University of Melbourne, the Doherty Institute and the Burnet Institute.

Ian Potter Foundation chief executive officer Paul Conroy said the Cumming Centre would "galvanize top global talent to focus entirely on developing the therapeutics we will need at speed for any future pandemic".

"With this approach, the Centre envisions a previously unimaginable future where novel therapeutics are generated within weeks of identifying a new virus and are swiftly delivered to patients in need, providing equitable access to treatments and saving millions of lives," Mr Conroy said.

## AROVELLA THERAPEUTICS

Arovella says a mouse study of University of North Carolina cytokine technology shows it enhances Arovella's invariant natural killer T-cells (iNKT) and anti-tumor activity.

Last year, Arovella said it had an option with the University of North Carolina Lineberger Comprehensive Cancer Centre to licence cytokine technology for its invariant natural killer T cell platform (BD: Dec 20, 2022).

Today, the company said the mouse studies showed that including the cytokine technology resulted in prolonged persistence of invariant natural killer T-cells and higher cell numbers, which correlated with significantly greater activity against tumors.

Arovella chief executive officer Dr Michael Baker said the data was "compelling and provides excellent support that this cytokine technology can enhance Arovella's already highly potent iNKT cell platform".

"We believe there is strong scientific support that incorporating the cytokine technology into Arovella's iNKT cell platform may make our cancer-targeting technology even more effective for a range of cancer types, including solid tumors," Dr Baker said.

Arovella said the successful experimental outcome triggered an option fee of \$US15,000 (\$A22,414) to the University of North Carolina, which was "not material" and would be covered by existing cash reserves.

Arovella was unchanged at 4.5 cents.

## [NYRADA](#)

Nyrada says it will not take its cholesterol-lowering drug candidate to a planned phase I/IIa trial after an adverse signal was observed in a toxicology study.

Earlier this year, Nyrada said it had delayed its phase I/IIa trial of its drug candidate for lowering cholesterol, with the NYX-PCSK9i trial “expected to start early second half calendar year 2023” (BD: Apr 11, 2023).

Today, the company said during the late stages of the 28-day in-vivo toxicology study “adverse pathology findings in response to [its] drug candidate were observed in a number of animal subjects”.

Nyrada said after seeking advice from its consultant toxicologist “and following further discussions with the US [contract research organization] it was determined that the company’s clinical drug candidate [was] not suitable to be advanced into a first-in-human study”.

Nyrada chief executive officer James Bonnar said, “the observed pathology findings were unexpected, with our drug candidate successfully passing safety and toxicology studies except for one”.

“Although this development means a temporary delay in the program, we remain committed to our mission to develop an oral small molecule PCSK9 inhibitor drug, as we believe it to be the optimal approach to lowering high cholesterol,” Mr Bonnar said.

Nyrada fell 4.4 cents or 55.7 percent to 3.5 cents with 3.5 million shares traded.

## [AVITA MEDICAL](#)

Avita says it will rejoin the US Russell 3000 index after the 2023 annual reconstitution, effective from June 26, 2023.

Avita said the Russell indices record the 4,000 largest US stocks on April 28, 2023 and ranks them by total market capitalization, including the Russell 3000 and Russell Microcap indices.

According to Wikipedia, the Russell indices are evaluated by the Financial Times [London] Stock Exchange (FTSE) group, in turn a subsidiary of the London Stock Exchange Group. Avita said the Russell indices were “widely used by investment managers and institutional investors for index funds and as benchmarks for active investment strategies” with about \$12.1 trillion in assets benchmarked against the FTSE Russell’s US indices.

Avita chief executive officer Jim Corbett said the company was “pleased to rejoin the globally recognized Russell indexes”.

“We believe our inclusion will expand our exposure to the investment community and broaden our investor base, further advancing our strategic growth initiatives,” Mr Corbett said.

Avita fell seven cents or 1.45 percent to \$4.75 with 327,144 shares traded.

## [OPTHEA](#)

Sydney’s Regal Funds Management Pty Ltd says it has increased its holding in Opthea from the equivalent to 91,100,873 shares (19.60%) to 96,368,923 shares (20.63%).

Regal Funds said it bought and sold Australian shares and bought American depository shares (ADSs), between October 4, 2022 and June 16, 2023, with the single largest purchase and sale 3,000,000 shares for \$3,285,000, or 91.3 cents a share.

Regal Funds said it currently held 73,087,499 Australian shares (15.65%) and 2,910,178 ADSs (4.98%) with each ADS equivalent to eight Australian shares.

Opthea was up half a cent or 0.9 percent to 54 cents with 1.1 million shares traded.

### ATOMO DIAGNOSTICS

Walker Group says it has ceased its substantial shareholding in Atomo with the sale of 28,807,407 shares on June 6 and 22, 2023 for \$777,807, or 2.7 cents a share.

Earlier this month, the Sydney-based Walker Group Holdings Pty Ltd said it held 28,818,122 shares, or 5.04% (BD: Jun 7, 2023).

Atomo was unchanged at 2.1 cents.

### HEXIMA

Sydney's Dr John Tarrant says he has increased his substantial shareholding in Hexima from 21,409,105 shares (12.82%) to 23,287,366 shares (13.94%).

Dr Tarrant said that through Balmain Resources Pty Ltd and Cadex Petroleum Pty Ltd, between June 13 and 23, 2023, he bought 1,878,261 shares for \$33,766, or an average of 1.8 cents a share.

Hexima was unchanged at 2.1 cents.