



# Biotech Daily

Friday July 10, 2020

*Daily news on ASX-listed biotechnology companies*

- \* **ASX, BIOTECH DOWN: USCOM UP 8%; ANTISENSE DOWN 12%**
- \* **DR BOREHAM'S CRUCIBLE: CYNATA THERAPEUTICS**
- \* **COMPUMEDICS 'COVID-19 HITS REVENUE' DOWN 15% TO \$36m**
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- \* **JM FINANCIAL, NO PLAN B TAKE 14% OF UNIVERSAL BIOSENSORS**

## MARKET REPORT

The Australian stock market fell 0.61 percent on Friday July 10, 2020, with the ASX200 down 36.3 points to 5,919.2 points. Eleven of the Biotech Daily Top 40 stocks were up, 22 fell, five traded unchanged and two were untraded.

Uscom was the best, up two cents or 7.8 percent to 27.5 cents, with 391,088 shares traded. Dimerix climbed seven percent; Actinogen and Optiscan improved more than four percent; Proteomics was up 3.7 percent; Neuren and Universal Biosensors rose two percent or more; Orthocell, Prescient and Resmed were up more than one percent; with CSL, Opthea and Starpharma up by less than one percent.

Yesterday's 17 percent best, Antisense, led the falls, down 1.3 cents or 11.8 percent to 9.7 cents, with 3.5 million shares traded. LBT and Resonance retreated more than eight percent; Alterity and Avita lost more than seven percent; Genetic Signatures and Osprey shed six percent or more; Medical Developments and Kazia fell more than four percent; Clinuvel, Oncosil and Pro Medicus were down three percent or more; Impedimed, Paradigm and Volpara shed more than two percent; Cyclopharm, Mesoblast, Nanosonics, Next Science and Pharmaxis were down more than one percent; with Cochlear, Polynovo and Telix down by less than one percent.

## DR BOREHAM'S CRUCIBLE: CYNATA THERAPEUTICS

By **TIM BOREHAM**

**ASX code:** CYP

**Share price:** 62 cents; **Shares on issue:** 117,124,004; **Market cap:** \$72.6 million

**Chief executive officer:** Dr Ross Macdonald

**Board:** Dr Paul Wotton (chairman), Dr Macdonald, Dr Stewart Washer, Dr Geoff Brooke, Dr Darryl Maher\*

\* A senior R&D executive with CSL, Dr Maher replaced Peter Webse, who continues as company secretary, on June 16

**Financials (March quarter 2020):** revenue nil, cash from operating activities \$803,000\*, cash balance \$6.92 million\*\*

\* Includes \$2.51m of government grants and incentives

\*\* Ahead of \$5.55m placement and share purchase plan.

**Identifiable major holders:** Fidelity International 9.9%, Fujifilm 7.4%, Dr Ross Macdonald 1.8%, Dr Mal Washer family account 1.9%

Contrary to conventional wisdom, the art of successful clinical efforts lies not in their underlying scientific rigor, but the ability to communicate them with catchy acronyms of convoluted trial names.

Cynata excels itself with its coronavirus trial MEND, a creative stretch on the full title of MEseNchymal-coviD-19 trial.

Then there's the company's osteoarthritis trial SCUIpTOR, which compresses "stem cells as a symptom – and structure – modifying Treatment for medial tibiofemoral OsteoaRthritis".

(The trial sponsor the University of Sydney can take credit for that one).

More seriously, Cynata chief Ross Macdonald says clinical success relies not so much on safety and efficacy - they're a 'given' - but the ability to mass produce a therapy.

"If you can't manufacture your product by the truckload you don't have a product at all - but a biologic or medical curiosity," he says.

In that vein, Cynata claims to lead the race for commercial stem cell treatments with its manufacturing technique that doesn't rely on material from blood marrow donors.

The company is at the pointy end of development with late stage programs for knee osteoarthritis, graft versus host disease (via a partnership) and - of course Covid-19.

The only problem is despite locked-down Victoria's best efforts to inflate the casualty lists there aren't enough patients in critical care to enroll.

## **The science of stem cells**

Cynata's work is based on harvesting induced pluripotent stem cells (iPSCs), from which mesenchymal stem cells (MSCs) are derived.

MSCs are adult stem cells which can be isolated from human and animal sources and can produce more than one kind of specialist cell. Currently these precursor cells are derived from embryos, which presents some ethical challenges, or rely on a painful process called bone marrow aspiration.

The 'pluripotent' bit means the iPSCs have the ability to develop into any type of adult cell. They can be derived from anywhere in the body - typically skin and blood - and grown in limitless quantities in the laboratory.

The underlying intention is to treat the inflammation, which ironically is the body's way of responding to an infection.

"Think of it as the immune system back-burning to control a blaze," Dr Macdonald says. "The back-burn gets out of control and then becomes the bigger problem."

Cynata's intellectual property stems from the University of Wisconsin-Madison, the centre of US stem cell research. The Uni's Prof Igor Slukvin co-founded Cynata with the aim of licencing the technology from the Wisconsin Alumni Research Foundation.

That's WARF, which also developed the rat killer cum blood thinning drug, Warfarin.

Japanese research is also playing a crucial role in developing the technology, with Prof Shinya Yamanaka winning a Nobel Prize in 2012 for his work.

"The fact that an Australian company is now developing it is a quirk of history and about the availability of capital at the time," Dr Macdonald says.

Cynata back-door listed in October 2013 via the shell of green nappy maker Eco Quest. Dr Macdonald joined Cynata at the outset, having been CEO of the private Hatchtech. Hatchtech was working on a cure for head lice, which remains one of medicine's confounding issues alongside a Covid-19 antidote - and just as contagious.

Okay, were exaggerating, but frazzled parents might not agree.

## **Where have all the patients gone?**

As with Mesoblast which we analyzed last week, Cynata is zeroing in on the role of cytokines in inciting acute respiratory distress syndrome – or Ards – the usual cause of Covid-19 deaths. An inflammatory process, Ards gives rise to fluid build-up and ultimately respiratory failure.

The MEND trial will build on Cynata's pre-clinical work with sepsis and cytokine release syndrome, which are common features of severe Covid-19 cases.

Having received ethics approval in early May, the company planned to enroll 24 adult Covid-19 patients in intensive care in New South Wales. It was intended that half the patients would receive the Cymerus infusion as well as the standard-of-care, while half would receive the current standard-of-care, alone.

The primary endpoint was improvement in oxygen levels by day-7, with safety and tolerability by day-28 tacked on as a secondary aim.

We're talking in the past tense here because despite Victoria's worst efforts in the last fortnight, there's a dearth of critical-care patients to recruit.

"It was fairly clear that Australia's prevention measures effectively flattened the curve and we quickly ran out of available patients," Dr Macdonald says.

One option is to relocate the trial to an offshore corona-cluster, but the trouble is that the stricken areas are constantly changing (as Mesoblast discovered with its US based trial).

"We need to make sure we don't chase the pandemic around the world," Dr Macdonald says.

Barring a full blown local "second wave" of infections, another option is to expand the program to other illnesses: Ards is common to influenza, pneumonia and even inhaling toxic fumes, with Cynata's initial Ards program two years ago focused on non Covid-19 causes.

### **A pressing knee-d for an osteo treatment**

In mid-June Cynata won regulatory and ethics approval to run a phase III trial to test Cymerus on knee osteoarthritis sufferers.

Aimed at enrolling 440 patients, the randomized, double-blinded, placebo-controlled trial is sponsored by the University of Sydney and fully funded by a \$2 million grant from the National Health and Medical Research Council.

Dr Macdonald estimates that if Cynata were to fund the trial it would cost \$20-25 million. The difference is that the University benefits from 'in kind' arrangements, such as access to imaging machines. Cynata however will provide the product, which is not cheap to make.

While there are plenty of patients to recruit, the parties are waiting for New South Wales health authorities to allow clinical trials to resume. The trial will assess the effect of injected Cymerus over two years, the co-primary endpoints being patient-assessed pain reduction and reduced cartilage loss.

The company's pre-clinical research suggests that the release of cytokines and growth factors reduces inflammation and promotes tissue repair and new blood vessel formation.

Under the watchful eye of the University of Sydney's osteoarthritis expert, Prof David Hunter, the trial will be carried out at sites in Sydney and Tasmania.

## **GVHD – Good Value Here Dudes**

Cynata is working closely with its Japanese partner Fujifilm to launch a phase II trial for graft-versus-host disease, hopefully by the end of this year.

GvHD is an immunological condition that afflicts bone-marrow recipients, when the donor's T-cells view the patient's healthy cells as foreign and attack them, and is usually fatal for patients resisting steroid treatment.

Fuji is funding all product development and commercialization, with Cynata in line for milestone and royalty payments.

Japan is especially keen on stem cell therapies because of the country's ageing population, with Prime Minister Abe keenly promoting the research. Liberalized regulation means it's possible to have a product approved after phase II trials.

Cynata's own 15-patient, phase I trial showed that by day-100, 13 of them had shown improvement in the severity of GvHD symptoms. Eight of the 15 showed a complete response rate: in other words, all GvHD signs and symptoms had disappeared.

The trial was the first time any patient had been treated with iPSC-derived mesenchymal stem cells - their own cells or otherwise.

The Japanese trial is likely to enroll 15 to 20 patients.

## **And furthermore ...**

In January, the UK Medicines and Healthcare Products Regulatory Agency gave the go ahead for a phase II trial for critical limb ischemia. Cynata had planned a 90-patient effort, but once again COVID-19 intervened.

Critical limb ischemia is an advanced form of peripheral artery disease, resulting from narrowing of the arteries (especially in the lower legs). This results in gangrene, ulceration and other nastiness.

## **Finances and performance**

Cynata's piggy bank was bolstered in April after the company joined the conga line of biotechs going to the well by raising \$3.55 million in a placement at 60 cents apiece, a 23 percent discount.

A further \$4.8 million was raised via a share purchase plan that initially targeted \$2 million.

Fujifilm is kindly funding the GvHD trials, and with the knee osteo trials taken care of as well, Cynata's main financial commitment is the Covid-19 stuff.

Cynata has pocketed a \$US3 million upfront payment from Fujifilm and is in line for up to \$US60 million of milestones, with \$US2 million at the end of the trial. Dr Macdonald says Fujifilm still believes a new drug would be worth \$US300 million in annual sales, which would deliver at least \$US30 million in annual royalties to Cynata.

Fuji caused investor conniptions by not exercising its rights to the deal by the original deadline of March last year, a prevarication that sent the shares down 35 percent in a day.

Cynata shares since listing have traded as high as \$1.66 (August 2019) and as low as 31 cents (January 2016). They have been less resilient than most other biotechs during the corona crisis, having traded at \$1.09 before late February's share market meltdown.

### **Cynata is hot property**

Cynata's market valuation belies the fact that in July last year it fielded a non-binding but genuine takeover offer from Japanese conglomerate Sumitomo, for \$2 a share cash.

Cynata granted non-exclusive due diligence and ceased chatting to some other prospects in the wings, but by mid-October the Sumitomo talks had ceased.

"We decided to part company and remain good friends," Dr Macdonald says.

He says the deal's termination wasn't so much about price, but Cynata's decision-making being stymied during the negotiating period. In particular the osteoarthritis and critical limb ischemia trials were put on ice - a costly delay given the subsequent coronavirus interruption.

### **Dr Boreham's diagnosis:**

With the key trials delayed, there's a bit of dead air ahead on Cynata's announcements bandwidth and some investors might get b-o-r-e-d.

Or will they? Like a thoughtful parent packing away cards and Guess Who for a road trip with the kids, Dr Macdonald hints at more 'Fuji type' partnering deals.

"Unusual things can happen in the corporate world," he says. "We do have active dialogue with corporate parties at any time. We have walked away from some because we want to be assured of the right deal for shareholders."

Dr Macdonald admits the current share weakness is frustrating, given the "legitimate" \$2 a share offer.

Meanwhile, Cynata remains a takeover target. "We are a publicly traded company - we are for sale every day of the week at the right price," Dr Macdonald says.

***Dr Boreham is not a qualified medical practitioner and does not possess a doctorate of any sort. Happily, his offspring are old enough to be beyond the reach of lice super spreaders.***

## COMPUMEDICS

Compumedics says its unaudited revenue for the year to June 30, 2020 was down 14.5 percent to \$35,500,000 due to the impact of the Covid-19 pandemic.

Compumedics said revenue came primarily from its Orion Lifespan magneto-encephalography (MEG) for epilepsy and pre-surgical brain function mapping and its Somfit sleep monitor.

The company said it had cash and cash equivalents of \$6,500,000 at June 30, 2020 compared to \$4,600,000 at June 30, 2019.

Compumedics said its cash and cash equivalents were ahead of expectations, and had been achieved through working capital management, immediate expense reductions and obtaining government Covid-19 assistance packages around the world.

Compumedics was unchanged at 45 cents.

## AVITA THERAPEUTICS

Avita says its unaudited revenue for the year to June 30, 2020 was up 164.4 percent to \$US14,320,000 (\$A20,630,400).

Avita said sales of its Recell spray-on-skin for soft tissue regeneration were up 213.4 percent to \$US13,790,000 (\$A19,830,600) compared to the previous corresponding period.

The company said it had cash and cash equivalents of \$107,020,000 at June 30, 2020, compared to \$29,155,000 at June 30, 2019.

Last month, Avita shareholders approved for the company to move its operations to the US (BD: Apr 21, Jun 15, 2020).

Today, the company said the exchange rate involved in the move had affected their cash holdings.

Avita fell 64 cents or 7.5 percent to \$7.88 with 996,759 shares traded.

## POLYNOVO

Polynovo says the US Food and Drug Administration has requested additional information for the protocol of its pivotal trial of Novosorb for full thickness burns.

Polynovo said that the formal feedback from the FDA including a request for the formalization of the review points through the trial.

In March, the company said it had filed the results of its 15-patient trial of Novosorb for full thickness burns to the FDA with its investigational device exemption application, and it expected "approval for the larger pivotal trial IDE in June 2020" (BD: Mar 16, 2020).

Today, Polynovo said it was working through a response to the FDA which could delay the start of the trial recruitment.

Polynovo managing-director Paul Brennan said that "the request for further information from the FDA is positive and will give the trial clarity and ensure robust outcome measurements".

"We have the ongoing support of our [Biomedical Advanced Research and Development Authority] colleagues, and we will announce funding arrangements immediately the FDA approve the IDE."

Polynovo fell one cent or 0.4 percent to \$2.43 with 6.95 million shares traded.

## POLYNOVO

Polynovo says June 2020 was a record month for US sales of its Novosorb biodegradable temporizing matrix (BTM) and has reported its first UK Novosorb sale.

Polynovo said it had opened seven new hospital accounts in the US since April 7, 2020, with a 67 percent increase in US hospital accounts for the 12 months to June 30, 2020, but did not provide sales revenue numbers.

The company there has been “numerous applications” of Novosorb BTM in Germany, Australia and Switzerland and sales were increasing in the region.

Polynovo said it expected the sales for the year June 30, 2020 to double those in the previous corresponding period.

Last year, Polynovo reported sales of goods up 435 percent from \$1,747,000 to \$9,348,000 (BD: Aug 22, 2019).

Polynovo managing-director Paul Brennan said that the “sales results for Novosorb BTM are very strong given the difficulties faced with Covid-19”.

“Our teams have maintained their engagement with customers, and we continue to see sales growth,” Mr Brennan said.

## CORRECTION: RAGE BIOTECH

Last night’s edition incorrectly reported that London’s IP Group was co-funding the Rage lung disease program.

In fact, the funds are from IP Group Australia, a subsidiary of London’s IP Group PLC.

Biotech Daily has placed the Thursday sub-editor on JobLeaver and apologizes unreservedly for the error.

Rage is a private company.

## CRESO PHARMA

Creso says its subsidiary Mernova Medicinal Inc has a \$US625,690 (\$A901,255) purchase order for dried medicinal marijuana flowers from Univo Pharmaceuticals.

Creso said the Nova Scotia, Canada-based Mernova would provide four strains of its “cured and hand-trimmed dried medicinal cannabis flower” to the Tel Aviv, Israel-based Univo within two weeks of the grant of an export permit by Health Canada.

The company said the order could not be terminated by Univo, but Univo had the right to reject the product and receive a partial refund if any material defects were identified within 21 business days of delivery.

Creso chief executive officer Dr Miri Halperin Wernli said that following the company’s entry into Israeli in April, “we are delighted to have received another significant purchase order from Univo which further strengthens our penetration into this growing market”.

“Univo has an impressive distribution network, including significant connections to pharmacies and patients in Israel, so this truly is a tremendous growth opportunity for Creso,” Dr Halperin Wernli said.

“Israel is widely recognized as one of the more progressive and active cannabis markets globally and Univo’s acceptance and continued demand for our cannabis is a major testament to the quality of our product and the expertise of the Mernova team,” Dr Halperin Wernli said.

“As wholesale demand for our products continues to solidify, we are also preparing for Mernova’s launch into the Canadian retail market which is another exciting near-term opportunity,” Dr Halperin Wernli said.

Creso was up 0.2 cents or 6.7 percent to 3.2 cents with 28.5 million shares traded.



## [MEMPHASYS](#)

Memphasys says Canadian approval for its Felix sperm separation device for in-vitro fertilization has triggered the vesting of 11,200,000 performance options.

Memphasys said Health Canada would not classify the Felix device as a medical device “on the basis that medical devices must directly interface with the patient” and it would not be subjected to the regulatory rigors required for medical devices.

The company said that commercial sales were expected to begin by the end of 2020, following the completion of the verification and validation tests on the final manufactured product.

Memphasys said the Canadian approval was a milestone achievement and the board had agreed to vest 11,200,000 performance options to staff and consultants, with 8,000,000 of the options granted to executive chairman Alison Coutts.

The company said the options were exercisable at 11.42 cents each by October 21, 2021. Memphasys was up two cents or 34.5 percent to 7.8 cents with 7.6 million shares traded.

## [BLUECHIIP](#)

Bluechiip has requested a trading halt pending an announcement relating to a letter from Labcon North America about the “long term development and supply agreement”.

Trading will resume on July 14, 2020 or on an earlier announcement.

In 2018, Bluechiip said it had a three-year deal worth \$US11.6 million (\$A15.9 million) to supply its tracking chips, hardware and services to the San Francisco-based Labcon North America (BD: Aug 29, 2018).

Bluechiip last traded at 5.7 cents.

## [UNIVERSAL BIOSENSORS](#)

JM Financial Group and No Plan B Pty Ltd say they have become substantial in Universal Biosensors with 25,292,608 shares or 14.25 percent of the company.

The Melbourne-based JM Financial and No Plan B said that between March 12 and July 7, 2020 they bought a total of 3,547,993 shares for 647,595 or an average of 18.25 cents a share.

Universal Biosensors was up half a cent or two percent to 25.5 cents.