

Biotech Daily

Thursday June 1, 2023

Daily news on ASX-listed biotechnology companies

- * MAY ALL INDICES FALL: BDI-40 2%, ASX200 3%, BIG CAPS 0.5%; NBI 3%
- * TODAY: ASX UP, BIOTECH DOWN: NEXT SCIENCE UP 11%; IMUGENE DOWN 9%
- * IMUGENE DOSES 1st IMU-201 COMBINATION NSCLC PATIENT
- * PARADIGM: 'PPS REDUCES OSTEOARTHRITIS PAIN, IN DOGS'
- * HERAMED: FOND PERKS, ENTRUSTIA HEALTH DEALS
- * IDT REQUESTS 'CAPITAL RAISING' TRADING HALT
- * IAN OWLES TAKES 7% OF BIOXYNE
- * NAM HOAT CHUA INCREASES, DILUTED TO 6% OF BIOXYNE
- * ECHO IQ APPOINTS SIMON TOLHURST DIRECTOR
- * DR DONNA O'DONNELL REPLACES ZELIRA DIRECTOR LISA GRAY
- * ONCOSIL APPOINTS CHRISTIAN DAL CIN CFO, CO SEC
- * AUSBIOTECH AGRIBIO VICTORIA JULY BIOCHEERS

MARKET REPORT

The Australian stock market was up 0.27 percent on Thursday June 1, 2023, with the ASX200 up 19.5 points to 7,110.8 points. Twelve of the Biotech Daily Top 40 stocks were up, 15 fell, 10 traded unchanged and three were untraded. All three Big Caps were up.

Next Science was the best, up 5.5 cents or 10.9 percent to 56 cents, with 137,991 shares traded. 4D Medical climbed 7.8 percent; Avita improved 4.65 percent; Nanosonics, Nova Eye and Pro Medicus were up three percent or more; Cochlear, Mesoblast, Neuren and Orthocell rose two percent or more; CSL, Opthea, Pharmaxis and Starpharma were up more than one percent; with Resmed up by 0.7 percent.

Imugene led the falls, down one cent or 9.1 percent to 10 cents, with 14.6 million shares traded. Cyclopharm and Proteomics lost more than six percent; Kazia and Universal Biosensors fell more than five percent; Medical Developments and Volpara fell four percent or more; Clinuvel was down 3.05 percent; Dimerix, Paradigm and Resonance shed more than two percent; Alcidion, Genetic Signatures and Polynovo were down more than one percent; with Telix down by 0.3 percent.

BIOTECH DAILY TOP 40 INDEX (BDI-40)

All indices fell in the month of May, easing from the previous improvement.

Biotechnology stocks have been recovering since last Spring, with the Biotech Daily Top 40 Index (BDI-40) down 2.15 percent in May to \$20,252 million.

The ASX200 fell 3.0 percent in May to 7,091 points, a 1.7 percent fall over 12 months, compared to the BDI-40 which was up 35.9 percent for the year (see charts below).

The Nasdaq Biotechnology Index (NBI) fell 2.7 percent in April and was up 9.75 percent for the year.

The collective value of the three Big Caps of Cochlear, CSL and Resmed (which are not included in the BDI-40) fell half a percent in May to \$211,470 million, but 12.3 percent higher than May 31, 2022.

But CSL climbed a further \$1,153 million or 0.8 percent to a record high of \$147,793 million. Cochlear slipped 2.4 percent to \$15,998 million, with Resmed down 3.7 percent to \$47,679 million.

A storm of modest falls dragged the BDI-40 down, with just nine companies improving, of which six were up by 10 percent or more; while 30 fell, with 21 down by more than 10 percent, and seven falling more than 20 percent.

From a very low base, Uscom was the best, up \$3 million or 42.9 percent to \$10 million, followed by Micro-X (28.0%), Mesoblast (27.3%), Nova Eye (25%), Immutep (13.3%), Telix (11.5%), Proteomics (9.3%), Compumedics (7.1%) and last, but far from the least, 4D Medical was up \$12 million or 4.8 percent on its debut into the BDI-40.

Actinogen led the 30 falls, down \$32 million or 27.6 percent to \$84 million, followed by Next Science (26.0%), Dimerix (25.8%), Avita (25.6%), Antisense (22.2%), Genetic Signatures (22.2%), Patrys (20.7%), Impedimed (17.8%), Starpharma (17.3%), Cynata (17.2%), Opthea (16.9%), Prescient (16.7%), Paradigm (15.8%), Amplia (15.0%), Medical Developments (14.0%), Imugene (12.0%), Emvision (11.5%), Pharmaxis (11.4%), Nanosonics (11.1%), Polynovo (10.8%) and Atomo (10.5%).

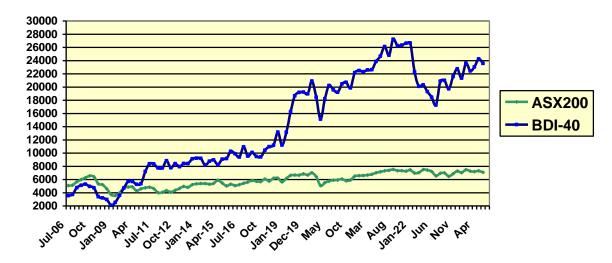
We believe this is what brokers call "a buying opportunity".

Despite Zelira's \$24 million or 218.2 percent leap on yesterday's news that its marijuana ZLT-L-007 improved pain scores in combination with pregabalin (but apparently without statistical significance), Cannabis Corner lost a further 2.6 percent in May to a collective market capitalization of \$681 million, 38.2 percent below last year.

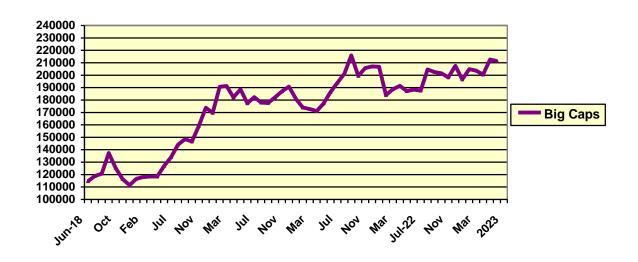
Zelira's rise just offset Incannex's \$23 million or 12.1 percent fall. Creso climbed \$2 million or 8.3 percent to \$26 million, with four more down and four unchanged.

4D Medical will replace Oncosil in the Second 20 with Oncosil moving into the Third 20.

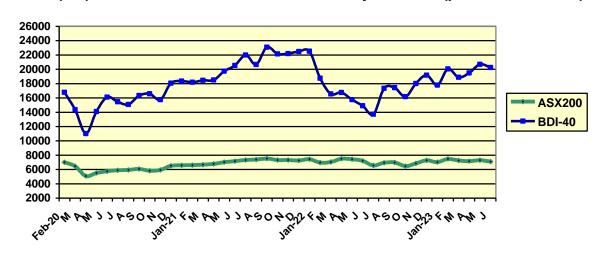
BDI-40 v ASX200 Jun 30, 2006 to May 31, 2023- Adjusted



Big Caps \$m (Cochlear, CSL, Resmed) May 31, 2018 - May 31, 2023



BDI-40 (\$m) v S&P ASX 200 - Jan 31, 2020 - May 31, 2023 (pre-Covid to date)



IMUGENE

Imugene says it has dosed the first of up to 36 patients in its phase I/Ib trial of PD1-Vaxx IMU-201 in combination with Tecentrif, or atezolizumab, for non-small-cell lung cancer. Last year, Imugene said that its PD1-Vaxx for non-small-cell lung cancer was "generally safe and well tolerated" and that it had one complete and one partial response in 14 patients (BD: Aug 8, 2022).

In 2020, the company said it had dosed the first of 32 patients in its trial of the PD1-Vaxx checkpoint immunotherapy for non-small cell lung cancer (BD: Dec 1, 2020).

Today, Imugene said the open label, dose escalation and expansion study in Australia and the US, would determine safety, efficacy and optimal dose of PD1-Vaxx as a monotherapy or in combination with atezolizumab.

The company told Biotech Daily the trial would recruit 18 to 36 patients with stage IIIb or IV non-small cell lung cancer that were either naïve for immune checkpoint inhibitors or previously had an immune checkpoint inhibitor and had progressed on or after treatment. Imugene said atezolizumab was an immune checkpoint inhibitor that targeted programmed death ligand-1 (PD-L1).

The company said Tecentriq had shown "clinically meaningful benefit" in various types of lung cancer, with six approved indications in the US, and was the first approved cancer immunotherapy for adjuvant non-small-cell lung cancer, as well as the first approved cancer treatment for adults with extensive-stage small cell lung cancer in combination with carboplatin and etoposide chemotherapy.

Last year, Imugene said Roche would supply quantities of atezolizumab for the duration of the study (BD: Jan 28, 2022).

Imagene fell one cent or 9.1 percent to 10 cents with 14.6 million shares traded.

PARADIGM BIOPHARMA

Paradigm says that a 20-dog, 26-week trial of injected pentosan polysulfate sodium (PPS) has reduced osteo-arthritis pain compared to placebo.

Paradigm said the treatment led to "durable improvements" in pain, joint function and cartilage volume compared to placebo at both eight and 26 weeks.

The company said the 26-week timeline in dogs was equivalent to about three years in humans and the injectable PPS formula regulated levels of molecular biomarkers CTX-1, HA and TIMP-1.

Paradigm chief executive officer Paul Rennie said the treatment had "again shown consistent clinical and functional improvements, this time in a double-blinded, placebo-controlled study of osteoarthritis in dogs".

"The canine study was performed concurrently with the PARA-OA-002 phase III study and therefore, did not interfere with nor impede the progress of our pivotal phase III clinical trial," Mr Rennie said.

"The market for [osteoarthritis] is seeking safe and effective treatments for patients which provide clinically significant improvements in pain and function, and for those effects to be durable," Mr Rennie said.

"Additionally, the canine data demonstrated that [injectable PPS] reduced cartilage degradation at the three-year human equivalent time-point (canine 26 weeks) and improved the disease biomarker profile by reducing CTX-1 and hyaluronic acid and increasing TIMP-1 compared to placebo," Mr Rennie said.

"Paradigm will use these canine data in our ongoing discussions with the regulators," Mr Rennie said.

Paradigm fell 2.5 cents or 2.9 percent to 83.5 cents with 1.1 million shares traded.

HERAMED

Heramed says Fond Perks will incorporate its Heracare foetal heart rate technology and Entrustia Health will use the platform for obstetrics and gynecology support.

Heramed said San Francisco's Fond Perks offered employees corporate rewards, and since US employees receive health insurance from their employers, Fond would incorporate its Heracare platform into its portfolio and make it available for its clients.

The company said the Fond Perks agreement was multi-year with all licence fees to be paid up-front for each pregnancy registered through Fond Perks and Heracare.

Heramed said Entrustia Health would coordinate the implementation and ongoing sales of accessories, licences and provision of support and the promotion of Heracare among its network of obstetricians.

Heramed fell half a cent or 6.25 percent to 7.5 cents.

IDT AUSTRALIA

IDT says it has requested a trading halt, pending an announcement regarding "a proposed capital raising".

Trading will resume June 5, 2023 or on an earlier announcement.

IDT last traded at 9.6 cents.

BIOXYNE

lan Owles says he has become a substantial shareholder in Bioxyne, with 132,488,966 shares or 6.97 percent of the company.

Last week, Bioxyne said it had completed the acquisition of 83 percent of Breathe Life Sciences, issuing 1,230,000,000 shares to shareholders, 576,268,527 shares to Breathe International and up-to 37,732,857 shares to Breathe International subsidiary Zonetech Wellness (BD: May 22, 2023).

The company later said that it had become substantial in itself, Breathe International had become a substantial shareholder and Custodian Nominee Company Ltd and VIG Ltd have been diluted below substantial (BD: May 24, 2023).

Today, Mr Owles said he acquired the shares on May 19, 2023 in consideration for the sale of shares in Breathe Life Sciences.

Bioxyne was untraded at 2.4 cents.

BIOXYNE

Bioxyne chief executive officer Nam Hoat Chua says he has increased and been diluted from 76,549,342 shares (15.08%) to 115,074,013 shares (6.13%).

Mr Chua said he was issued 6,000,000 shares in lieu of his \$150,000 salary on May 19, and was diluted following the issue of shares on that same day (see above).

Mr Chua said that he bought 2,500,000 shares for \$37,500 or 1.5 cents a share on June 16, 2020 and exercised 32,124,671 options for \$320,247 or 1.0 cents an option.

Mr Chua said he held the shares for himself and Peng-Hyang Ng.

ECHOIQ

Echo IQ says it has appointed Simon Tolhurst as a non-executive director, effective from today.

Echo IQ said Mr Tolhurst was previously the chair, and currently a director, of Nexted Group.

The company said Mr Tolhurst had more than 30 years' experience in legal practice and had worked as a partner at law firm HWL Ebsworth.

Echo IQ said it would issue Mr Tolhurst 5,000,000 unlisted options exercisable at 25.0 cents within three years, subject to shareholder approval, in addition to his annual salary of \$66,000 a year.

According to his Linkedin page, Mr Tolhurst held a Bachelor of Laws from the Queensland University of Technology and a Master of Law from the University of Melbourne, Echo IQ was up half a cent or 3.2 percent to 16 cents.

ZELIRA THERAPEUTICS

Zelira says it has appointed Dr Donna Gentile O'Donnell as a non-executive director, replacing Lisa Gray, effective June 1, 2023.

Zelira said Dr O'Donnell was an assistant to Thomas Jefferson University president Dr Stephen Klasko and the University's senior vice president for innovation partnerships and programs.

The company said Dr O'Donnell was formerly a principal at O'Donnell Associates and the Philadelphia, Pennsylvania-based Eastern Technology Council managing-director. Zelira said it would seek shareholder approval to issue Dr O'Donnell's 95,000 unlisted options at an exercise price of \$1.15 and expiring three years from the date of issue. Zelira fell 75 cents or 24.6 percent to \$2.30.

ONCOSIL MEDICAL

Oncosil says it has appointed the CFO Solution's Christian Dal Cin as chief financial officer and company secretary, succeeding Karl Pechmann (BD: May 24, 2023). Oncosil said Mr Dal Cin had experience in corporate secretarial, accounting and general management through the CFO Solution and previous companies. Oncosil was unchanged at 1.2 cents.

AUSBIOTECH

Ausbiotech says its Victoria Biocheers will tour La Trobe University's Agribio Centre for its networking event on July 27, 2023.

Ausbiotech said guests would have the opportunity to meet its Victoria state committee members, including Paradigm chair Helen Fisher.

The industry organization said the tour would start at 4.30pm and was limited to 50 people, while the networking function would run from 5.30pm to 7.30pm.

For more information and to register for the event, go to:

https://www.ausbiotech.org/events/event/vic-biocheers-july-2023.

BIOTECH DAILY TOP 40 WITH MARKET CAPITALIZATION AT MAY 31, 2023

Company \$Am	Jun-22	May-23	Jun-23
Cochlear	14,666	16,395	15,998
CSL	130,942	146,640	147,793
Resmed	42,689	49,528	47,679
BDI-20			
Avita	200	586	436
Clinuvel	785	995	924
Compumedics	35	28	30
Cyclopharm	121	197	188
Cynata	57	29	24
Genetic Signatures	178	108	84
Immutep	364	233	264
Kazia	107	43	40
Medical Developments	188	86	74
Mesoblast	641	649	826
Nanosonics	1,156	1,708	1,518
Neuren	489	1,810	1,752
Nova Eye	31	40	50
Opthea	481	332	276
Pharmaxis	46	44	39
Polynovo	817	1,149	1,025
Pro Medicus	4,297	6,442	6,198
Starpharma	294	196	162
Telix	1,455	3,342	3,725
Volpara	191	201	193
Second 20			
4D Medical	190	251	263
Actinogen	126	116	84
Alcidion	178	123	120
Amplia	21	20	17
Antisense	70	54	42
Atomo	45	19	17
Dimerix	47	31	23
Emvision	142	122	108
Impedimed	151	331	272
Imugene	1,141	803	707
Micro-X	74	50	64
Next Science	164	146	108
Orthocell	72	74	72
Paradigm	281	285	240
Patrys	46	29	23
Prescient	111	78	65
Proteomics	104	107	117
Resonance	38	20	18
Universal Biosensors	97	54	54
Uscom	16	7	10

^{*} Biotech Daily editor, David Langsam, owns shares in 4D Medical, Acrux, Actinogen, Alcidion, Alterity, Amplia, BTC Health, Clarity, Cochlear, Control Bionics, Cynata, Nanosonics, Neuren, Patrys, Pharmaxis, Polynovo, Telix, Volpara and non-biotech stocks. Through Australian Ethical Superannuation he has an indirect interest in other companies:

https://www.australianethical.com.au/personal/ethical-investing/companies-we-invest-in/. These holdings are liable to change.

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