BELL POTTER

2 May 2022

Speculative

See key risks on Page 5 and Biotechnology Risk Warning on Page 9. Speculative securities may not be suitable for Retail Clients.

Analyst
John Hester 612 8224 2871

Authorisation
Chris Savage 612 8224 2835

Paradigm Biopharmaceuticals (PAR)

First Patient Enrolled In Pivotal

Recommendation
Buy (unchanged)
Price
$1.175
Valuation
$2.10 (previously $3.00)
Risk
Speculative

GICS Sector

Pharmaceuticals & Biotechnology

Expected Return	
Capital growth	**70.7%**
Dividend yield	**0.0%**
Total expected return	**70.7%**

Company Data & Ratios	
Enterprise value	**$228.4m**
Market cap	**$267.4m**
Issued capital	**227.6m**
Free float	**91%**
Avg. daily val. (52wk)	**$1.2m**
12 month price range	**$0.93 - $2.69**

Price Performance

	(1m)	(3m)	(12m)
Price (A$)	1.12	1.52	2.39
Absolute (%)	7.59	-20.46	-49.58
Rel market (%)	8.30	-23.46	-54.06

Absolute Price

SOURCE: IRESS

Pivotal Study Under Way

Momentum is now building for PAR with the first patient having been dosed in the US pivotal study and the FDA granting Fast Track Designation to the OA program.

Closing cash at 31 March 2022 was $39.9m with operating cash burn of $15.2m for the quarter, up from $10.4m in the December quarter. The key driver of the increased spend not surprisingly was R&D and this coincides with site activations for the US pivotal study where there are now 21 of 56 sites open. We expect spend on the clinical program to increase over the coming months as site activations and enrolments increase. On a combined basis the US pivotal study and the confirmatory study in Europe will enrol ~1,600 patients.

We had previously assumed non-dilutive funding to provide additional working capital to complete the clinical program. The model now assumes an equity raise and while this results in some dilution to shareholder value, the potential of iPPS is now several large steps closer to reality. The company may yet source non-dilutive capital – such as an advance on future royalties or debt, however, the commencement of enrolments in the pivotal study represents a major catalyst for meaningful partnering discussions to advance. In this regard we note that PAR met with 30 pharma companies at Bio Spring Europe in March. Zilosul has the potential to become one of the largest selling drugs of all time if the claims for disease modification and pain reduction are met.

There is little doubt that PAR's negotiating position will be enhanced with a strong balance sheet. We expect headline data in knee OA in CY24.

Investment View – Retain Buy (Speculative) Valuation $2.10

There are material increases to operating expenses in FY22 and FY23 following re-assessment of the timing on the clinical program for OA. Valuation is reduced by 30% to $2.10 following dilution from a theoretical capital raise. We maintain our Buy (Speculative) rating.

Earnings Forecast

June Year End	FY21	FY22e	FY23e	FY24e
Revenues	0.0	0.0	0.0	59.1
EBITDA $m	-34.3	-56.6	-66.0	2.0
NPAT (underlying) $m	-34.3	-55.4	-65.5	2.5
NPAT (reported) $m	-34.3	-55.4	-65.5	2.5
EPS underlying (cps)	-15.0	-24.2	-22.7	0.8
EPS growth %	na	na	na	na
PER (x)	nm	nm	nm	145.0
FCF yield (%)	nm	nm	nm	69%
EV/EBITDA (x)	nm	nm	nm	123.4
Dividend (cps)	-	-	-	-
Franking	0%	0%	0%	0%
Yield %	0.0%	0.0%	0.0%	0.0%
ROE %	na	na	na	6.1%

SOURCE: BELL POTTER SECURITIES ESTIMATES

Pivotal Study Underway In The US

It has been a long time coming, but the first patient has finally been dosed in the first arm of the US pivotal study for injectable Pentosan Polysulfate Sodium (iPPS – brand name Zilosul).

The trial is a 2 stage adaptive design to evaluate the dose and treatment effect of iPPS in knee osteoarthritis (OA).

In this first phase of the trial, patients are randomised to receive one of three iPPS dose regimens or placebo for 6 weeks. The objective is to identify the dose for stage 2 of the trial which is expected to commence later this year.

The dose escalation is necessary as PAR had not previously conducted a dose escalation study – which is unusual for a drug about to enter a phase 3 study. The phase 2 trial (which reported in December 2018) had been dosed at 2mg/kg iPPS (in 100mg/ml injectable solution) administered by subcutaneous injection, twice weekly for 6 weeks. We expect this will also be the final dose and regimen for the pivotal study, however, the dose escalation is a necessary part of the process.

Likely Timing For Headline Data

Back in December 2020 the company released a provisional timetable for the phase 3 study (known as PAR_OA_002). The indicative timetable needs to be reset now that enrolment has finally commenced. The initial timetable was perhaps ambitious given the COVID19 challenges that have been so pervasive over the last two years, nevertheless, here we are.

PAR has previously estimated the period from first enrolment through to last patient treated at approximately 7 quarters. We now expect the last patient dose to be administered in 2H2023. The US trial is expected to recruit rapidly with 21 centres now open for recruitment, increasing to 56 sites in the coming months.

The confirmation study (PAR_OA_003 to be run in Europe) will commence once the final dose for the phase 3 is determined. Enrolment is likely to commence in 1HCY23. PAR has also announced that all regulatory approvals are now in place for the trial to commence.

The trials are fully harmonised across both European and US regulators. The two trials have common endpoints and this will be a major driver of value for potential partners.

The bottom line is that headline data for OA is likely in 2H CY2024. That said, we believe Zilosul has the potential to become one of the largest selling drugs of all time, so the prize will be worth the wait. The key points from the clinical data to date are:

- There has not been a single severe adverse in any of the trials conducted to this point;
- The earlier randomised phase II study conducted across 112 patients in Australia met all primary endpoints. Approximately 46% of patients achieved >50% reduction in knee OA pain at day 53. The result was statistically significant compared to placebo; and
- Data from the Special Access Scheme run in Australia over recent years has continued to support favourable outcomes seen in the earlier clinical trials.

We note the results from this study have never been published in a peer reviewed article.

Funding

Cash disbursements on R&D in the March quarter were A$14m and this increased significantly from the prior quarter. We believe the spend will increase going forward driven by an increase in site activations and enrolments.

Based on our forecast spend rate over the period of the pivotal study and the confirmatory study, the model now assumes a further capital raise for ~$72m and this replaces the non dilutive funding we had previously assumed. We assumes this funding round takes place in FY23.

In our view a cashed up balance sheet and a fast enrolling, harmonised phase 3 clinical program puts the company in a very strong position to conduct partnering discussions.

The likelihood of a successful partnering process has risen significantly since our last update. The commencement of enrolment in the pivotal study represents a major catalyst for potential pharma partners to enter formal discussions and we have noted the interest of numerous parties at the recent Spring Bio Conference in Europe.

The model assumes that PAR partners Zilosul at about the time of the headline data in FY24. At that time there will be considerably more data available from additional clinical trials running in parallel with the pivotal study including from PAR_008 which is currently recruiting in Australia.

In our view the best outcome for shareholders would be achieved if the company were able to self-fund through to the completion of the phase 3 program. A successful clinical program could lead to a multi-billion dollar acquisition with the key caveat being resolution of the outstanding patent claims. As we have previously noted, PAR has exclusive long term rights to the supply of the active ingredient in the injectable dose format from the manufacturer in Germany and this is a key component of the intellectual property protection.

Changes to earnings and valuation

The key points are:

- First revenues now expected in FY25 (previously FY24) with the delay in the opening of the IND being the driver of the commencement of revenues;
- A further equity injection in FY23 for ~$72m with these funds required for working capital;
- Completion of a partnering deal in FY24 with initial milestone income of US$75m payable upon a successful phase 3 clinical study; and
- Material increases to clinical trial spend in FY22 and FY23.

Our estimate of a potential upfront on a partnering deal is highly subjective, however, we note one of most recent partnering deals by an Australian biotech was Mesoblast who had signed an agreement with Novartis in 2020 for the use of remestemcel-L in the treatment of COVID induced acute respiratory distress syndrome (ARDS). The deal involved a US$50m upfront (equity and milestone income). At that time, Mesoblast were recruiting a pivotal study in the indication. Ultimately the deal did not proceed, nevertheless, the comparison has some merit as a benchmark. The likely market for Zilosul is likely to many times the size of the market for COVID ARDS, hence, the upfront may well be conservative.

Our previous valuation was $3.00 share implying a market capitalisation of ~$680m. Since that research, global markets in biotechnology have undergone a significant adverse re-rating and accordingly the market price has declined by ~40% from $1.97 to $1.20.

The implied dilution from the assumed capital raise is ~26% of the current shares on issue.

The valuation is reduced to $2.10 being a 30% discount to the previous valuation, hence the adjustment is mostly attributable to the dilution from a theoretical capital raise.

Figure 1 - Summary of earnings changes

	2022			2023		
	New	Old	% change	New	Old	% change
Revenues	0.0	3.0	-100%	0.0	5.2	-100%
EBITDA	-56.6	-42.6	-25%	-66.0	-26.4	-150%
NPAT	-55.4	-42.1	-24%	-65.5	-25.9	-153%
EPS	-24.2	-18.4	-24%	-22.7	-11.3	-101%

SOURCE: BELL POTTER SECURITIES

The implied market capital (inclusive of the dilution from a theoretical capital raise) is ~$628m and in our view this is not unreasonable given the potential market size for Zilosul and its advanced position in the pivotal study and confirmatory study.

Paradigm Biopharmaceuticals

Paradigm Biopharmaceuticals is an Australia biotechnology company focused on repurposing Pentosan Polysulfate Sodium (PPS) for the treatment of Osteoarthritis (OA) in the knee. If approved the drug will have the brand name Zilosul.

The global market for a safe, effective treatment that provides superior patient outcomes compared to the standard of care is a multiple blockbuster. The recently completed phase II study produced some highly encouraging results that are worthy of further clinical trials.

In the US along the incidence of moderate to severe osteoarthritis is estimated at 30m persons. The pricing of the drug will ultimately be determined by the economic benefit associated with its use as well as the cost of other therapies. The conservative estimate is US$2,500 per year which places the addressable market in the tens of billions of US$.

PROGRESS IN THE CLINIC

December 2018 - PAR announced headline results from its phase 2b randomised, double blind, placebo controlled multicentre trial, investigating subjects with Osteoarthritis and concurrent Bone Marrow Edema (BME) lesions (n=112). The trial met the clinical endpoint of change in Knee Injury and Osteoarthritis Outcome Score (KOOS) pain achieving both clinically meaningful and statistically significant results between placebo and PPS.

The headline results were followed up with strong signals of efficacy in the secondary endpoints (including KOOS function). This phase II trial was conducted at 6 sites in Australia.

PATHWAY TO APPROVAL

The company is pursuing a 505(b)2 registration pathway in the US. PAR is now enrolling patients in the first arm of a clinical trial.

ADJACENT INDICATIONS

Paradigm recently executed an Exclusive In-License Agreement for the use of iPPS in the treatment of mucopolysaccharidoses (MPS), a group of inherited lysosomal storage disorders. A key unmet medical need in this class of inherited disease is the lack of treatment of joint pain and dysfunction akin to osteoarthritis, hence the applicability of iPPS in treating these rare joint diseases. MPS is classified as an Orphan Indication/Designation in the US/EU and provides Paradigm the opportunity to serve a US$1.4bn p.a. market that is in desperate need of new cost-effective treatments.

KEY RISK AREAS

Regulatory Pathway - PAR is seeking registration for iPPS under the 505(b)2 regulatory pathway. The pathway is designed specifically for repurposed drugs including changes in dose form, strength, route of administration, formulation, dosing regimen or indication. This proposed repurposing of PPS has some rare characteristics.

- While the drug has been approved for years as an oral format and there is ample safety data, the proposed format, the dose and the indication (being OA) are all new.
- There is also the issue of the opioid crisis. PPS is a non steroid, non opioid, non addictive substance that has been shown to have a significant impact of pain levels associated with OA. It may help to reduce the accidental deaths from opioid overdose.
- PAR intends to conduct two phase 3 studies, one pivotal study of 900 subjects and a confirmatory phase 3 study of ~700 subjects.
- PAR will present a comprehensive set of safety data from the recent Phase II trial together with data from subjects treated in the compassionate use program and two phase 3 trials, thus representing a safety set of nearly 1,700 subjects. The evidence of

treatment will be established from two adequate and well controlled studies and further supported by the phases 2 data set.

Intellectual Property

- The company has several patents over the formulation and dosing on iPPS for the treatment of OA. The validity of these patents is highly likely to be challenged at some point, especially if the drug is a commercial success.
- The company has an exclusive supply contract with Bene Pharmaceuticals (Bene). We understand the exclusivity applies to human use only (excludes veterinary use). Bene holds the only drug Masterfile with the FDA to manufacture PPS. This supply contract represents a crucial piece of the company's value as it effectively prevents or delays the creation of generics.
- We are not aware of the contractual conditions that may lead to a termination of this contract (if any).
- We understand there are some other manufacturers of PPS, however, these products are not registered for human use and may not be referenced in any application for registration for human use. We understand the primary use of these products is veterinary.

Clinical Risk

- The efficacy of iPPS has not been validated in a large, multicentre, randomised, controlled clinical trial. There is no guarantee that the results from earlier studies will be repeated in a larger phase III study.

Commercial Validation

- Our valuation makes assumptions regarding selling price and volume in relation to future revenues from the sale of iPPS. In order for physicians to prescribe the drug and for payers to offer reimbursement, the clinical trials will need to demonstrate clinically significant improvement over the standard of care i.e. meaningful improvement in patient quality of life for pain reduction, side effect management and mobility amongst others. Early indicators based on the data from the phase II study are encouraging.

Paradigm Biopharmaceuticals

as at 2 May 2022

Recommendation	Buy, Speculative
Price	$1.175
Valuation	$2.10

Table 1 - Financial summary

Profit & Loss (A$m)	FY20	FY21	FY22e	FY23e	FY24e
Year Ending June					
Risk adjusted revenues	-	-	-	-	**59.1**
COGS (Bene Royalty expense)	-	-	-	-	(2.2)
Gross profit	0.0	0.0	0.0	0.0	58.0
GP margin	na	na	0%	na	0%
R&D incentive	4.7	8.9	8.0	5.0	5.0
Other expenses	-17.0	-43.2	-64.6	-71.0	-61.0
EBITDA	-12.3	-34.3	-56.6	-66.0	2.0
Depreciation	-	-	-	-	-
Amortisation	-	-	-	-	-
EBIT	-12.3	-34.3	-56.6	-66.0	2.0
Finance income	-	-	1.2	0.5	0.5
Pre tax profit	**-12.3**	**-34.3**	**-55.4**	**-65.5**	**2.5**
Tax expense	-	-	-	-	-
NPAT- reported	-12.3	-34.3	-55.4	-65.5	2.5

Cashflow (A$m)	FY20	FY21	FY22e	FY23e	FY24e
Gross cashflow	-11.2	-35.1	-56.1	-61.0	2.0
Net interest	1.1	0.2	1.2	0.5	0.5
Tax paid	0.0	0.0	0.0	0.0	0.0
Operating cash flow	-10.1	-34.9	-54.9	-60.5	2.5
Maintenance capex	-0.1	0.0	0.0	0.0	0.0
Capitalised clinical trial spend	0.0	0.0	0.0	0.0	0.0
Free cash flow	-10.2	-34.9	-54.9	-60.5	2.5
Business acquistions	0.0	0.0	0.0	0.0	0.0
Proceeds from issuance	34.2	1.0	0.0	72.0	0.0
Movement in debt	1.9	0.0	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0
Change in cash held	25.9	(33.9)	(54.9)	11.5	2.5
Cash at beginning of period	72.4	104.0	71.0	16.1	27.6
Cash at year end	104.0	71.0	16.1	27.6	30.1

Balance Sheet (A$m)	FY20	FY21	FY22e	FY23e	FY24e
Cash	104.0	71.0	16.1	27.6	30.1
Receivables	3.5	8.5	8.0	3.0	3.0
Other current assets	0.9	1.4	1.4	1.4	1.4
Intangibles	3.0	3.0	3.0	3.0	3.0
Other	1.1	1.0	1.0	1.0	1.0
Total assets	112.4	84.8	29.5	36.0	38.4
Trade payables	2.8	5.0	5.0	5.0	5.0
Other liabilities	0.9	0.8	0.8	0.8	0.8
Debt	-	-	-	-	-
Other provisions	0.5	0.7	0.7	0.7	0.7
Total Liabilities	4.2	6.5	6.6	6.6	6.6
Net Assets	108.2	78.3	22.9	29.4	31.9
Share capital	145.9	147.0	147.0	219.0	219.0
Retained earnings	(41.4)	(75.2)	(130.6)	(196.1)	(193.7)
Reserves	3.7	6.5	6.5	6.5	6.6
Shareholders Equity	108.2	78.3	22.9	29.4	31.9

Last sale 02/05/2022	1.23
Recommendation	Buy (Spec)
Issued Capital	227.6
Market Cap	279.9

Valuation Ratios (A$m)	FY20	FY21	FY22e	FY23e	FY24e
Reported EPS (cps)	-6.1	-15.0	-24.2	-22.7	0.8
Normalised EPS (cps)	-6.1	-15.0	-24.2	-22.7	0.8
EPS growth (%)	na	na	na	na	na
PE(x)	**nm**	**nm**	**nm**	**nm**	**145.0**
EV/EBITDA (x)	nm	nm	nm	nm	123.4
EV/EBIT (x)	nm	nm	nm	nm	123.4
NTA (cps)	46.8	32.9	8.7	9.1	10.0
P/NTA (x)	0.0	0.0	0.1	0.1	0.1
Book Value (cps)	48.2	34.2	10.0	10.2	11.0
Price/Book (x)	0.0	0.0	0.1	0.1	0.1
DPS (cps)	-	-	-	-	-
Payout ratio %	0%	0%	0%	0%	0%
Dividend Yield %	0.0%	0.0%	0.0%	0.0%	0.0%
Franking %	0%	0%	0%	0%	0%
FCF yield %	nm	nm	nm	nm	69%
Net debt/Equity	0%	0%	0%	0%	0%
Net debt/Assets	0%	0%	0%	0%	0%
Gearing	net cash	net cash	net cash	net cash	net cash
Net debt/EBITDA (x)	n/a	n/a	n/a	n/a	n/a
Interest cover (x)	n/a	n/a	n/a	n/a	n/a

Interim Results (A$m)	1H21	2H21	1H22	2H22e
Revenues from product sales	-	-	-	-
R&D Rebate	-	8.9	-	8.0
Operating expenses	(20.7)	(22.5)	(27.0)	(37.6)
EBIT	(20.7)	(13.6)	(27.0)	(29.6)

SOURCE: BELL POTTER SECURITIES ESTIMATES

Recommendation structure

Buy: Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

Hold: Expect total return between -5% and 15% on a 12 month view

Sell: Expect <-5% total return on a 12 month view

Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.

Such investments may carry an exceptionally high level of capital risk and volatility of returns.

Research Team

Staff Member	Title/Sector	Phone	@bellpotter.com.au
Chris Savage	Head of Research/Industrials	612 8224 2835	csavage
Analysts			
John Hester	Healthcare	612 8224 2871	jhester
Anubhav Saxena	Healthcare	612 8224 2846	asaxena
Tara Speranza	Healthcare	612 8224 2815	tsperanza
Marcus Barnard	Industrials	618 9326 7673	mbarnard
Sam Brandwood	Industrials	612 8224 2850	sbrandwood
Olivia Hagglund	Industrials	612 8224 2813	ohagglund
Hamish Murray	Industrials	613 9235 1813	hmurray
Chami Ratnapala	Industrials	612 8224 2845	cratnapala
Jonathan Snape	Industrials	613 9235 1601	jsnape
David Coates	Resources	612 8224 2887	dcoates
Stuart Howe	Resources	613 9235 1856	showe
Brad Watson	Resources	618 9326 7672	bwatson
Regan Burrows	Resources	618 9326 7677	rburrows
Joseph House	Resources	613 9235 1624	jhouse
Associates			
Michael Ardrey	Associate Analyst	613 9256 8782	mardrey
Daniel Laing	Associate Analyst	612 8224 2886	dlaing

Disclosures

Research Coverage & Policies

For Bell Potter Securities' Research Coverage Decision Making Process and Research Independence Policy please refer to our company website: https://bellpotter.com.au/research-independence-policy/.

Authoring Research Analyst's Certification

The Authoring Research Analyst is responsible for the content of this Research Report, and, certifies that with respect to each security that the Analyst covered in this Report (1) all the views expressed accurately reflect the Analyst's personal views about those securities and were prepared in an independent manner and (2) no part of the Analyst's compensation was, is or will be, directly or indirectly, related to specific recommendations or views expressed by that Research Analyst in the Research Report.

Research Analyst's Compensation

Research Analyst's compensation is determined by Bell Potter Securities Research Management and Bell Potter Securities' Senior Management and is based upon activities and services intended to benefit the investor clients of Bell Potter Securities Ltd. Compensation is not linked to specific transactions or recommendations. Like all Company employees Research Analysts receive compensation that is impacted by overall Company profitability.

Prices

The Price appearing in the Recommendation panel on page 1 of the Research Report is the Closing Price on the Date of the Research Report (appearing in the top right hand corner of page 1 of the Research Report), unless a before midday (am) time appears below the Date of the Research Report in which case the Price appearing in the Recommendation panel will be the Closing Price on the business day prior to the Date of the Research Report.

Availability

The completion and first dissemination of a Recommendation made within a Research Report are shortly after the close of the Market on the Date of the Research Report, unless a before midday (am) time appears below the Date of the Research Report in which case the Research Report will be completed and first disseminated shortly after that am time.

Disclosure of Interest

Dissemination

Bell Potter generally disseminates its Research to the Company's Institutional and Private Clients via both proprietary and non-proprietary electronic distribution platforms. Certain Research may be disseminated only via the Company's proprietary distribution platforms; however such Research will not contain changes to earnings forecasts, target price, investment or risk rating or investment thesis or be otherwise inconsistent with the Author's previously published Research. Certain Research is made available only to institutional investors to satisfy regulatory requirements. Individual Bell Potter Research Analysts may also opt to circulate published Research to one or more Clients by email; such email distribution is discretionary and is done only after the Research has been disseminated.

The level and types of service provided by Bell Potter Research Analysts to Clients may vary depending on various factors such as the Client's individual preferences as to frequency and manner of receiving communications from Analysts, the Client's risk profile and investment focus and perspective (e.g. market-wide, sector specific long term and short term etc.) the size and scope of the overall Client relationship with the Company and legal and regulatory constraints.

Disclaimers

This Research Report is a private communication to Clients and is not intended for public circulation or for the use of any third party, without the prior written approval of Bell Potter Securities Limited.

The Research Report is for informational purposes only and is not intended as an offer or solicitation for the purpose of sale of a security. Any decision to purchase securities mentioned in the Report must take into account existing public information on such security or any registered prospectus.

This is general investment advice only and does not constitute personal advice to any person. Because this Research Report has been prepared without consideration of any specific client's financial situation, particular needs and investment objectives ('relevant personal circumstances'), a Bell Potter Securities Limited Broker (or the financial services licensee, or the representative of such licensee, who has provided you with this report by arrangement with Bell Potter Securities Limited) should be made aware of your relevant personal circumstances and consulted before any investment decision is made on the basis of this Research Report.

While this Research Report is based on information from sources which are considered reliable, Bell Potter Securities Limited has not verified independently the information contained in this document and Bell Potter Securities Limited and its directors, employees and consultants do not represent, warrant or guarantee expressly or impliedly, that the information contained in this Research Report is complete or accurate.

Nor does Bell Potter Securities Limited accept any responsibility for updating any advice, views, opinions or recommendations contained in this Research Report or for correcting any error or omission which may have become apparent after the Research Report has been issued.

Bell Potter Securities Research Department has received assistance from the Company referred to in this Research Report including but not limited to discussions with management of the Company. Bell Potter Securities Policy prohibits Research Analysts sending draft Recommendations, Valuations and Price Targets to subject companies. However, it should be presumed that the Author of the Research Report has had discussions with the subject Company to ensure factual accuracy prior to publication.

All opinions, projections and estimates constitute the judgement of the Author as of the Date of the Research Report and these, plus any other information contained in the Research Report, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice.

Notwithstanding other departments within Bell Potter Securities Limited advising the subject Company, information obtained in such role is not used in the preparation of the Research Report.

Although Bell Potter Research does not set a predetermined frequency for publication, if the Research Report is a fundamental equity research report it is the intention of Bell Potter Research to provide research coverage of the covered issuers, including in response to news affecting the issuer. For non-fundamental Research Reports, Bell Potter Research may not provide regular updates to the views, recommendations and facts included in the reports.

Notwithstanding that Bell Potter maintains coverage on, makes recommendations concerning or discusses issuers, Bell Potter Research may be periodically restricted from referencing certain Issuers due to legal or policy reasons. Where the component of a published trade idea is subject to a restriction, the trade idea will be removed from any list of open trade ideas included in the Research Report. Upon lifting of the restriction, the trade idea will either be re-instated in the open trade ideas list if the Analyst continues to support it or it will be officially closed.

Bell Potter Research may provide different research products and services to different classes of clients (for example based upon long-term or short term investment horizons) that may lead to differing conclusions or recommendations that could impact the price of a security contrary to the recommendations in the alternative Research Report, provided each is consistent with the rating system for each respective Research Report.

Except in so far as liability under any statute cannot be excluded, Bell Potter Securities Limited and its directors, employees and consultants do not accept any liability (whether arising in contract, in tort or negligence or otherwise) for any error or omission in the document or for any resulting loss or damage (whether direct, indirect, consequential or otherwise) suffered by the recipient of the document or any other person.

In the USA and the UK this Research Report is only for institutional investors. It is not for release, publication or distribution in whole or in part in the two specified countries. In Hong Kong this Research Report is being distributed by Bell Potter Securities (HK) Limited which is licensed and regulated by the Securities and Futures Commission, Hong Kong. In the United States this Research Report is being distributed by Bell Potter Securities (US) LLC which is a registered broker-dealer and member of FINRA. Any person receiving this Research Report from Bell Potter Securities (US) LLC and wishing to transact in any security described herein should do so with Bell Potter Securities (US) LLC.

Biotechnology Risk Warning

The fact that the intellectual property base of a typical biotechnology company lies in science not generally regarded as accessible to the layman adds further to the riskiness with which biotechnology investments ought to be regarded. Clinical and regulatory risks are inherent in biotechnology stocks. Biotechnology developers usually seek U.S. FDA approval for their technology which is a long and arduous three phase process to prove the safety, effectiveness and appropriate application or use of the developed drug and even after approval a drug can be the subject of an FDA investigation of subsequently discovered possible links between the drug and other diseases not previously diagnosed. Furthermore, the Australian exchange listed biotechnology sector is subject to influence by the global biotechnology sector, particularly that in the USA. Consequently, Australian exchange listed biotechnology stocks can experience sharp movements, both upwards and downwards, in both valuations and share prices, as a result of a re-rating of the sector both globally and in the USA, in particular. Investors are advised to be cognisant of these risks before buying such a stock.

Bell Potter Securities Limited
ABN 25 006 390 772
Level 29, 101 Collins Street
Melbourne, Victoria, 3000
Telephone +61 3 9256 8700
www.bellpotter.com.au

Bell Potter Securities (HK) Limited
Room 1701, 17/F
Prosperity Tower, 39 Queens Road Central, Hong Kong, 0000
Telephone +852 3750 8400

Bell Potter Securities (US) LLC
Floor 39
444 Madison Avenue, New York NY 10022, U.S.A
Telephone +1 917 819 1410

Bell Potter Securities (UK) Limited
16 Berkeley Street London, England W1J 8DZ, United Kingdom
Telephone +44 7734 2929