# PARA GMABIOPHARMA

December 2024
Capital Raising Presentation



## Disclaimer

This document, together with any information communicated by Paradigm Biopharmaceuticals Ltd ASX:PAR (known as "Paradigm", "Paradigm Biopharma" or "the Company"), in any presentation or discussion relating to this document (collectively, "Information") is confidential, and has been prepared by the Company on the condition that it is for the exclusive information and use of the recipient. The Information is proprietary to Paradigm and may not be disclosed to any third party or used for any other purpose without the prior written consent of the Company. Except as otherwise expressly stated in this presentation, Paradigm has not authorised any person to give any information or make any representation which is not contained in this presentation must not be relied upon as having been authorised by, or on behalf of, Paradigm.

The Information should not to be relied upon for the making of any investment decision. Any investment in Paradigm is subject to a number of investment risks including the possibility of loss of capital invested and no return of income or payment of dividends. Neither Paradigm nor any other entity or person in or associated with Paradigm guarantees any return (whether capital or income) or generally the performance of Paradigm or the price at which its securities may trade.

In particular, this presentation is not a recommendation, offer or invitation to subscribe for or purchase Paradigm securities. This presentation is not exhaustive of all of the information a potential investor or their professional advisers would require. This presentation does NOT constitute a "Prospectus" or a "Disclosure Document" (as defined in the Corporations Act 2001 (Cth) ("Corporations Act")) and has not been, and will not be, lodged with the Australian Securities and Investments Commission or any other regulatory authority. Accordingly it is not required to contain, and may not necessarily contain, all of the information that a Prospectus or like Disclosure Document would be required to contain pursuant to the Corporations Act.

This presentation does not take into account any specific objectives, financial situation or needs of investors. For these and other reasons, you are strongly recommended to obtain your own up to date independent legal, financial and investment advice – those acting without such advice do so at their own risk.

This presentation may contain "forward-looking statements" which are not historical facts. Words such as "expect(s)", "believe(s)", "believe(s)", "anticipate(s)" and similar expressions are intended to identify forward-looking statements. Any forward looking statements in this presentation are statements that are not historical facts, should be considered "at-risk statements" and not to be relied upon. These statements include, but are not limited to, statements regarding future clinical trial results, regulatory approvals, production targets, sales, staffing levels etc. All of such statements are subject to risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

These risks and uncertainties include, but are not limited to: (i) the possible delays in and the outcome of pre clinical and clinical trials, (ii) risks relating to possible partnering or other like arrangements, (iii) the potential for delays in regulatory approvals, (iv) the unknown uptake and market penetration of any potential commercial products and (vi) other risks and uncertainties related to the Company's prospects, assets / products and business strategy. This is particularly the case with companies such as Paradigm which operate in the field of researching, discovering, developing and commercialising potential treatments or other therapies.

You are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof and Paradigm does not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events. In addition, the past performance of Paradigm cannot be assumed as indicative of the future performance. There is NO guarantee of future performance, Including that Paradigm will achieve its stated objectives / milestones, that its forecasts will be met or that forward looking statements will be realised - actual results and future outcomes will in all likelihood differ from those outlined herein.

Neither Paradigm nor any of its advisers, agents or employees make or give any express or implied representation, warranty or guarantee that the information contained in this presentation or otherwise supplied by or on behalf of Paradigm is complete or accurate or that it has been or will be audited or independently verified, or that reasonable care has been or will be taken in compiling, preparing or furnishing the relevant information. Paradigm does not take any responsibility for any inference, interpretation, opinion or conclusion that any person may draw or form from this presentation.

To the maximum extent permitted at law, Paradigm and all of its representatives, directors, partners, employees or professional advisers exclude all direct and indirect liability arising out of or in connection with any use or reliance of the information contained or described within this presentation. Other than to the extent required by law (and only to that extent), the Parties do not make any representation or give any assurance, guarantee or warranty (express or implied) as to, nor assume any responsibility or liability for, the authenticity, origin, validity, accuracy, suitability or completeness of, or any errors in or omissions from, any information, statement or opinion contained in this Presentation or any accompanying, previous or subsequent material or presentation.

#### Not an offer

This presentation may not be released to US wire services or distributed in the United States. The new fully paid ordinary shares in Paradigm have not been, and will not be, registered under the US Securities Act of 1933 and may not be offered or sold in the United States except in transactions exempt from, or not subject to, the registration requirements of the US Securities Act and applicable US state securities laws. The distribution of this presentation in the United States and elsewhere outside Australia may be restricted by law. Persons who come into possession of this presentation should observe any such restrictions as any non-compliance could contravene applicable securities laws. See "International Offer Restrictions" for more information



## **Executive Summary**

#### **Background**



- Paradigm Biopharmaceuticals Limited (Paradigm, PAR or Company) is a late-stage clinical biotech company developing Pentosan Polysulfate Sodium (PPS, iPPS, Zilosul®) for the treatment of Osteoarthritis (OA).
- Molecule is a non-opioid with 60 years of success treating pain, inflammation, and thrombosis in humans.
- Multiple PH2 clinical trials have demonstrated efficacy, safety and durability of effect out to 12 months at 2mg/kg twice weekly.

#### FDA-cleared to proceed to PH3



- Cleared by the FDA to proceed with PH3 trial for knee OA on November 28 2024, at optimal dosing regimen of 2mg/kg twice weekly replicating successful PH2 trials.
- 466 patients, primary endpoint improvement in pain from baseline, interim analysis 1H CY26, final readout 1H CY27.
- Fast track designation received from FDA recognising need for non-opioid solution to treat OA.

#### Market potential



- Blockbuster potential with 72m+ in key target markets affected by OA 5% market penetration = \$5bn p.a. revenue potential.
- Commercial-scale manufacturing ready 25-year exclusivity from launch from bene pharmaChem, only FDA-approved manufacturer.
- Significant patent and exclusivity protection out to at least 2042 in the US.

#### Capital raising



- Capital raising of A\$16.0 million via a Placement at A\$0.40 per share.
- Funds raised will allow Paradigm to immediately commence PH3 enrolment in Australia and US.
- Non-dilutive funding from partnering or regional licensing deals to materially extend runway counterparties have been seeking FDA approval of PH3 trial design, which is now received.

## Blockbuster market opportunity

Zilosul® is a non-opioid subcutaneous injectable aimed to treat pain and function in osteoarthritis.

- **FDA Fast Track** Designation
- Market size potential US\$10B+ p.a.4

People affected by OA in 2020<sup>3</sup>



79m+

People affected by OA by 2030<sup>3</sup>



120m+

Markets: US, UK, France, Germany, Italy, Spain, Canada and Australia.

Compared with 2020, cases of OA are projected to increase 74.9% for knee and 78.6% for hip by 2050.5

Knee and Hip (Global)

of all OA

OA patients dissatisfied with current treatments1

Target uptake: 10% dissatisfied market1 Zilosul indicative price: US\$2500 per vear<sup>2</sup>

- Global Pricing Research conducted by Paradigm.US, UK Germany, France
- teoarthritis: A Serious Disease, Submitted to the U.S. Food and Drug
- Global, regional, and national burden of osteoarthritis, 1990-2020 and projections to 2050: a systematic analysis for the Global Burden of Disease Study 2021

"Most patients with OA of the hip and/or knee either initiate on or switch to opioids for long-term management of OA-related pain despite known risks. This highlights the need for new treatments that delay or prevent use of opioids1".

## Market Demand

Limited treatment options as degenerative OA disease progresses



## Phase 3 derisked by multiple Phase 2 trials

### **PARA 005**

Phase 2

#### Pain & Function

- 6-week treatment, 20-week follow-up, n=126
- Primary endpoint met, statistically significant improvement from baseline in pain & function.
- iPPS showed a 37% pain reduction vs 23% in placebo at Day 53.
- Durable pain & function improvement up to Day 165.

## PARA OA 008

Phase 2

#### Pain, Function, mechanism of action

- 6-week treatment, 46-week follow-up, n=61
- Key endpoints, improvement from baseline in pain & function.
- iPPS showed a 50% pain reduction vs 30% in placebo at Day 56.
- Durable effect with statistical improvements out to 1year.
- Structural improvements via MRI at 6 months.

### PARA OA 002

Phase 2

#### Safety & Dose Optimisation

- 6-week treatment, 18-week follow-up, n=601.
- Confirmation of minimum effective dose for phase 3 trial
- Safety profile consistent across all doses.

## PARA\_OA\_012

Phase 3

#### Pain & Function

- 6-week treatment, 52-week follow-up, n~466
- Primary endpoint: Change from baseline in pain
- Key secondary endpoints:
  - · Change from baseline in function
  - Patient Global Impression of Change (PGIC)

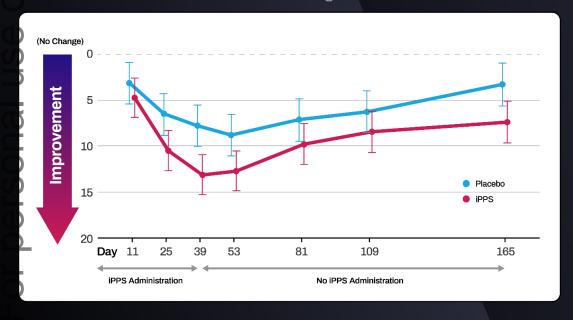
#### Regulatory Alignment

- FDA feedback on clinical endpoints and statistical procedures.
- Structural changes will be evaluated via X-ray and MRI as secondary endpoints consistent with regulatory guidance.

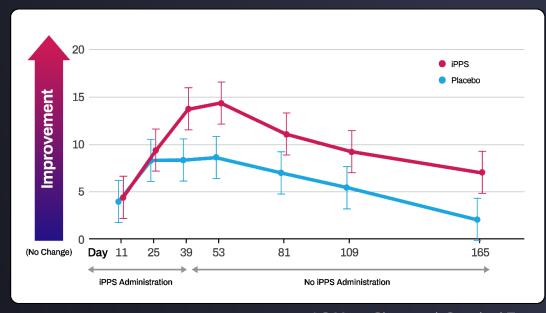


#### 2 mg/kg SC twice weekly v placebo for 6 weeks, Phase 2: PARA\_005 followed up for 6 months

## Pain Reduction | KOOS adjusted least squares mean change from baseline. FAS.



## Function ADL | KOOS adjusted least squares mean change from baseline. FAS.



LS Mean Change +/- Standard Error FAS: Full Analysis Set

KOOS: Knee Injury and Osteoarthritis Outcome Score

## Patient Global Impression of Change (PGIC)

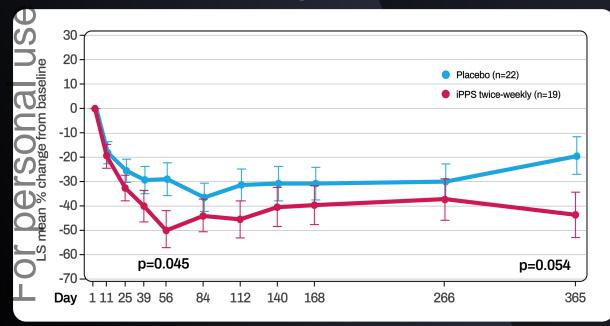
PGIC significantly higher in the PPS group than placebo group at Day 56 (4.42 mean versus 3.42, respectively; mean difference between PPS and placebo 1.0 [95% CI 0.24, 1.8]; p=0.0106).



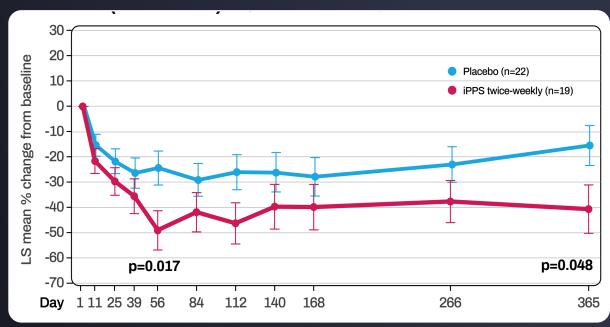
## Phase 2: PARA\_OA\_008 | 2 mg/kg IBW SC twice weekly v placebo for 6 weeks, followed up for 12 months (n=61)

A single 6-week course of twice-weekly iPPS demonstrates durable clinical outcomes out to 12 months

Pain Reduction | WOMAC least squares adjusted mean change from baseline. FAS.



**Function** WOMAC least squares adjusted mean change from baseline. FAS.



## Rescue medication use

5x lower cumulative use of rescue medication in iPPS group.

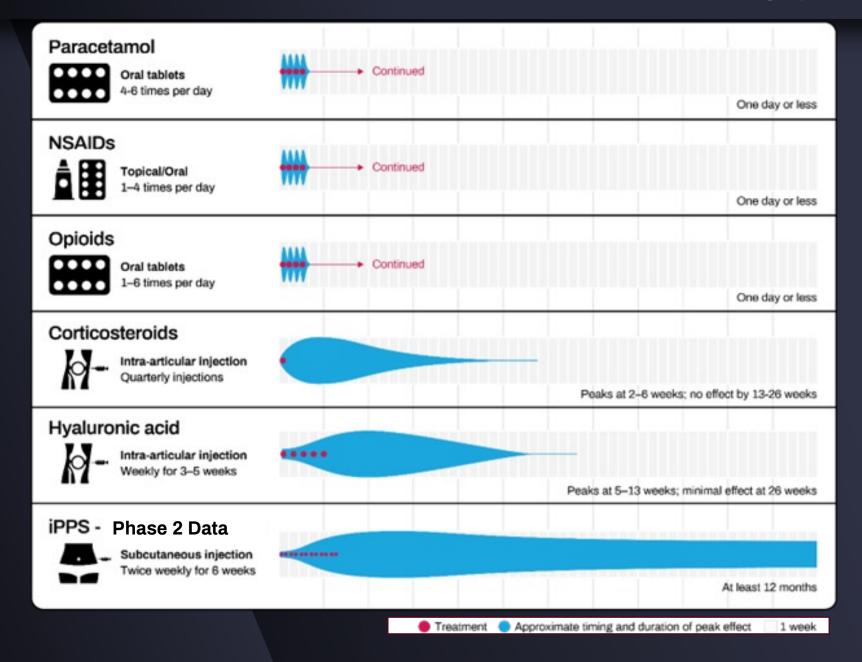
LS Mean Change +/- Standard Error FAS: Full Analysis Set WOMAC: Western Ontario and McMaster Universities Osteoarthritis Index

## Market Demand

iPPS Durability Compared to **Current OA Therapies** 

Current OA medication effect duration. Representative infographic reflecting current literature on the timing of the peak and estimated duration of treatment effect of currently available OA medications\* and iPPS data from the PARA\_OA\_008 clinical trial.

\*References available in Day 365 ASX Release.



## Para\_OA\_005

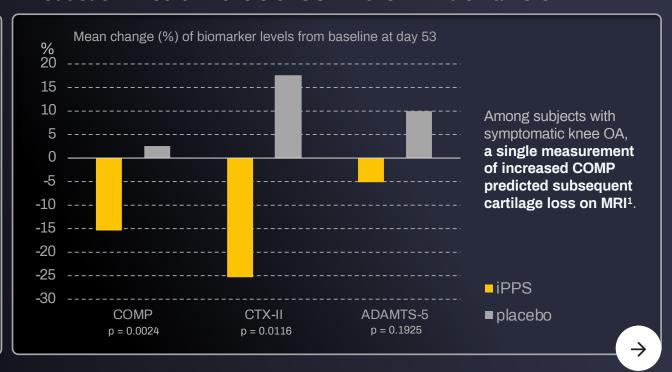
## Exploratory Endpoints

- 2 mg/kg SC twice-weekly v placebo
- PPS showed significantly reduced serum levels of cartilage degradation biomarkers and significant reduction in BML size as compared with placebo controls.

#### Reduction in size of bone marrow lesions

## Grade 3 Grade 2 medial tibial BML medial tibial BML at baseline at follow-up day 53

#### Reduction in serum levels of COMP & CTX-II biomarkers



## Molecular Biomarkers

PARA\_OA\_008

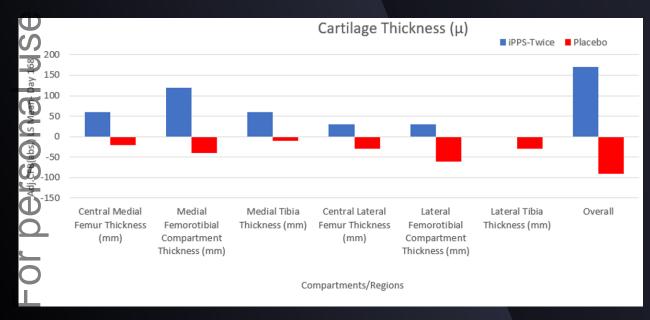
## Day 168 Top-Line Results – Changes in Synovial Fluid, Serum, and Urinary Biomarkers

• Molecular biomarkers of cartilage degradation in iPPS-treated subjects were favourable compared to placebo control.

Molecular Biomarker	Day 168 iPPS v placebo
C2C (Se)	Reduced (p= 0.024)
CTX II (U)	Reduced
COMP (SF)	Reduced
COMP (Se)	Reduced
ARGS (SF)	Reduced (p=0.024)
ARGS (Se)	Reduced

ARGS = Aggrecan amino acids alanine, arginine, glycine, and serine; C2C = collagen type-II C-terminal cleavage neoepitope; COMP = cartilage oligomeric matrix protein; CTX II = C-terminal crosslinked telopeptide type II collagen; Se = serum; SF = synovial fluid; U = urine.

## PARA OA 008 | Top-Line Day 168 Quantitative MRI Results



Cartilage Thickness (µm) Adj. CFB (abs.) LSM results by key regions of the medial and lateral compartments in knee

## Changes in Cartilage Thickness from baseline

- Twice weekly iPPS arm, demonstrated a consistent pattern of improvement in cartilage thickness across all key regions of medial and lateral compartments at 6 months
- Placebo showed a loss in cartilage thickness in all key regions at 6 months.
- iPPS increased the cartilage thickness in the central medial femur by 60µm (0.06mm) compared to a reduction of -20µm (-0.02mm) in the placebo group at 6 months.
- Placebo group demonstrated cartilage loss rate consistent with the natural progression of knee CA (-40µm or 0.04mm per year).

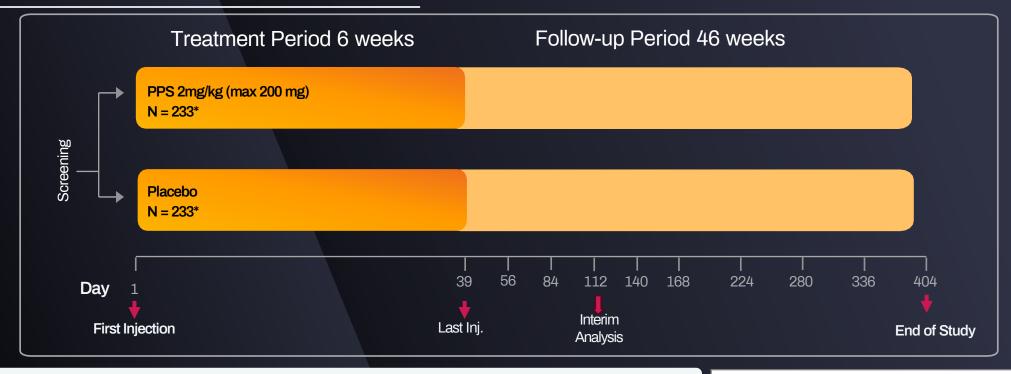
## FDA approval to commence PH3 at 2mg/kg

## Positive FDA Update

FDA review completed and PAR can proceed with PH3 trial as per company desired protocol:

- 2mg/kg twice weekly for 6-weeks dose regimen.
- 466 patients randomised 1:1, double blinded, placebo control.
- Primary endpoint: Change in baseline in pain at Day 112 (Average daily pain score (ADP)).
- Key Secondary: WOMAC Function at Day 112, Patient Global Impression of Change (PGIC) at Day 112.
- Secondary endpoints
  - WOMAC Pain and function assessments at multiple timepoints to Day 404.
  - IPPS effects on Rescue Medication use.
  - Stuctural changes via X-Ray and MRI from baseline day 168, 404
- Site Activation
  - Approximately 10 sites in Australia expected to be activated
  - Approximately 50 sites anticipated in the US
  - High performing sites from PARA OA 002 expected to participate.

## PARA\_OA\_012 Phase 3



Projected Time	Objective	
Q1 CY25	Start-up Activities – Australia.	•
Q1 CY25	First Patient enrolled	
Q2 CY25	US Site Initiation	
2H CY25	50% Recruitment	•
1H CY26	Interim Analysis	Ŀ
1H CY26	100% Recruitment	

### Interim Analysis (IA)

- Conducted once 50% of subjects (~233) reach Day 112.
- Plan assess efficacy and possible early conclusion of trial based on target effect size.
- DSMB to conduct Interim Analysis.
- Interim Analysis expected early CY26.

NB: Timelines are subject to funding and based on enrolment projections and may be subject to change.

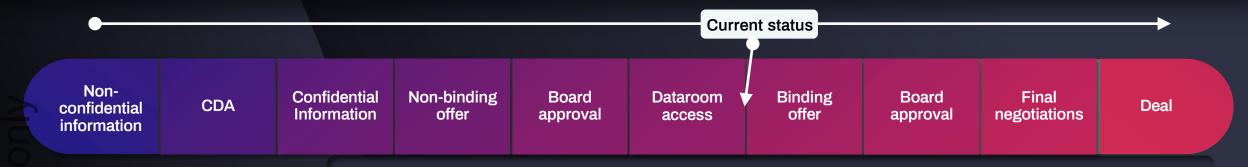
## ASX PH3 Comparison Table

## **Upside from** current valuation

Company	P3 Trial Indication	FDA Designations	Valuation (Market Capitalisation (\$Am)	
			At IND Clearance	Current
Opthea Ltd (OPT)	Wet age-related macular degeneration (Wet AMD)	Fast track	~A\$500	~A\$880
Mesoblast Ltd (MSB)	Chronic heart failure		~A\$1,500	~A\$2,000
Immutep Ltd (IMM)	Metastatic non-small cell lung cancer		~A\$535	~A\$470
Dimerix Ltd (DXB)	Focal segmental glomeruloscler osis (FSGS)	Orphan	~A\$90 (May-22)	~A\$200
Neuren Pharmaceuticals Ltd (NEU)	Phelan-McDermid syndrome (PMS)	Orphan	~A\$500 (Mar-22)	~A\$1,600
Botanix Pharmaceuticals Ltd (BOT)	Primary axillary hyperhidrosis		~A\$190 (Oct-23)	~A\$650
Paradigm Biopharmaceuticals Ltd (PAR)	Osteoarthritis of the knee	Fast track	~A\$180	

Source: Market capitalisations are approximate only. IRESS as of 29 November 2024. NEU and BOT have since completed PH3 studies and are in production likely to positively affect current market capitalisation above.





## Current Partnering Activity

### **Ongoing Commercial Partnering Efforts**

- Active engagement with key potential partners to support and co-fund late-stage development and future commercialisation.
- FDA PH3 trial acceptance was a critical milestone to progress these discussions multiple parties in multiple regions in dataroom stage expected to move to binding offers.

Region	Indication(s)
United States	OA
China	OA
South Korea	OA
Latin America	OA, MPS
Europe	MPS



## Funding position and use of funds

- Capital raising of A\$16.0 million funds initiation of Phase 3 activities and early enrolment in Australia and the US.
- A\$26.9m December pro forma cash balance post capital raising<sup>1</sup>. Non-dilutive funding from partnering or regional licensing deal to materially extend its runway. In addition, loyalty options could raise an additional ~A\$63.3 million from shareholders in early 2026.

Activity (A\$m)	16.0
Global Initiation of Phase 3 clinical trial setup	5.5
Phase 3 clinical trial site recruitment initiation (Aus & key US sites)	6.1
Inventory and Manufacturing (Phase 3 and NDA submission)	1.5
NDA enabling studies	1.2
Working capital including new hires for Phase 3 Clinical trial and costs of Offer	1.7

Cash balance of A\$13.15 million as of 30 September 2024, expected December 2024 quarter spend of \$7.00m maximum and R&D Refund provision estimate of \$5.5m.

The above table is a statement of current intentions as at the date of this Presentation. Investors should note that, as with any budget, the allocation of funds set out in the above table may change depending on a number of factors, including the outcome of sales performance, operational and development activities, regulatory developments, and market and general economic conditions. In light of this, Paradigm reserves its right to alter the way the funds are applied. Some figures may be subject to rounding errors.

## TGA Feedback Provisional Pathway

Paradigm received feedback from the TGA acknowledging that preliminary clinical results for PPS show potential benefits for patients with moderate to severe knee osteoarthritis (OA), although the TGA noted, OA at the milder end is not considered seriously debilitating.

#### The TGA indicated:

- o Data (Phase 2 clinical data package and Phase 3 protocol) supports pursuing full registration via the traditional pathway (CTX) rather than a provisional determination application
- Confirmed that execution of Paradigm's proposed Phase 3 program, along with comprehensive safety and efficacy data, will provide the evidence needed for full registration of PPS in Australia.

Given the TGA feedback, Paradigm will proceed with the full registration of PPS in Australia and not proceed down the Provisional Approval pathway.

## News flow & catalysts

# **Upcoming Catalysts**

Event	Target Date
FDA 30-day review completion, proceed to Pivotal Phase 3 PARA_OA_012 trial	Complete
Australian Ethics Submission – Phase 3 PARA_OA_012	Q4 CY2024
Regional licensing agreement(s) in OA and MPS.	CY2025
PARA_OA_012 – First Australian participant enrolled.	Q1 CY2025
PARA_OA_012 – First US participant enrolled.	Q2 CY2025
PARA_OA_008 Peer Review Publications – 2 manuscripts submitted to separate journals for review and anticipated publishing in CY25.	1H CY2025
PARA_OA_012 - 50% Recruitment of participants	2H CY2025*
PARA_OA_012 Interim Analysis – 50% participants reach Day 112	1H 2026*

<sup>\*</sup>The above is a statement of current intentions as at the date of this presentation. Investors should note that the above upcoming events are subject to funding or new circumstances.

## Offer Summary

PARAJIGM.

Paradigm is undertaking a capital raising of A\$16.0 million.

#### Offer Structure and Size

Placement to institutional, sophisticated and professional investors to raise A\$16.0 million (Placement or Offer).

40.0 million new fully paid ordinary shares (New Shares) to be issued under the Offer, representing approximately 11.5% of existing Paradigm shares on issue (prior to the Offer).

The Placement will utilise the Company's existing 15% placement capacity under ASX Listing Rule 7.1.

#### **Offer Price**

- New shares under the Offer will be issued at A\$0.40 per Share (Offer Price), representing:
  - o A ~10.6% discount to Paradigm's 15-day volume-weighted average price (VWAP) on Wednesday, 4 December 2024 of A\$0.4474; and
  - A ~2.9% premium to Paradigm's 30-day volume-weighted average price (VWAP) on Wednesday, 4 December 2024 of A\$0.3886

#### Ranking

New Shares issued under the Offer will rank pari passu with existing Paradigm shares on the date of issue.

#### **Lead Manager**

• Bell Potter Securities Limited ("Bell Potter") is acting as Sole Lead Manager and Bookrunner to the Offer.

#### Co-Manager

Blue Ocean Equities Limited ("Blue Ocean") is a Co-Manager to the Offer.

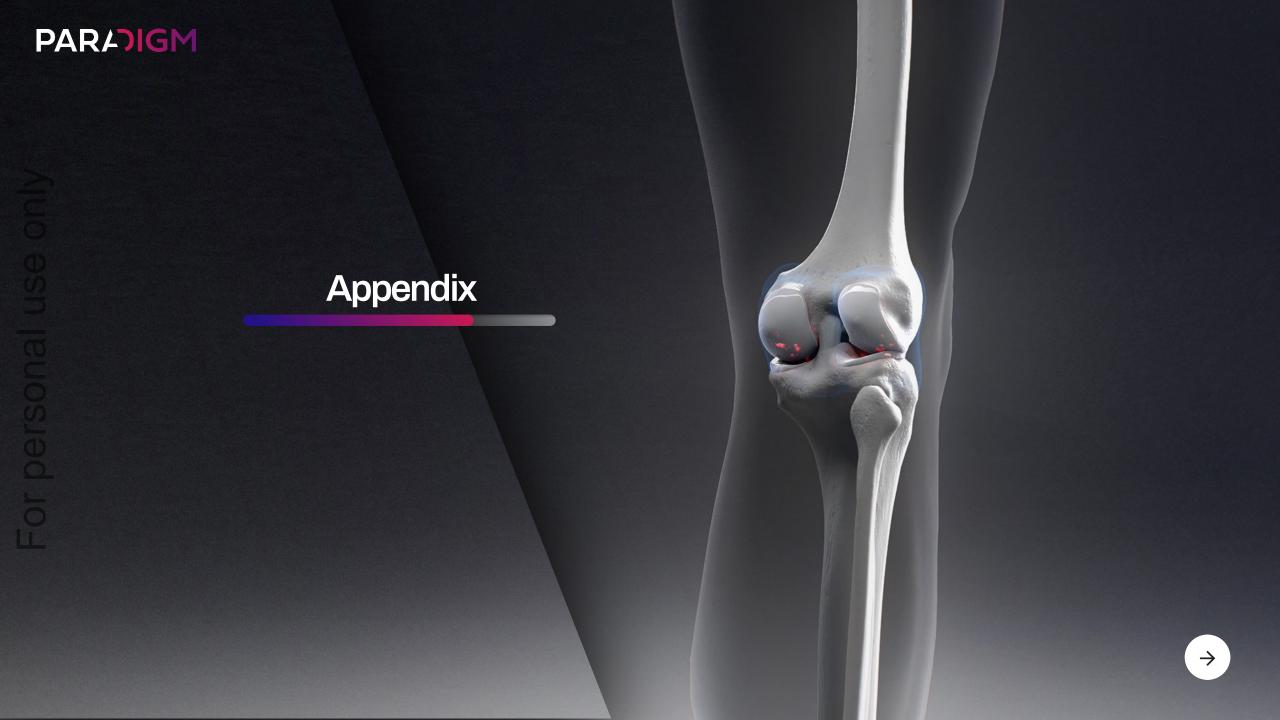
#### **Loyalty Options**

- It is the Company's current intention that every four (4) fully paid ordinary shares held on the record date of 4 business days following lodgement of a prospectus for the Loyalty Options will receive one (1) listed loyalty option ("Loyalty Option"). Loyalty Options will be exercisable at A\$0.65 and have an expiry date 12 months after the record date.
- Upon exercise, every two (2) Loyalty Options will receive one (1) piggyback option, which is exercisable at A\$1.00, expiring 24 months from the expiry date of the Loyalty Option. The Company will release a prospectus for the issue of Loyalty options in Q1CY25.

## **Indicative Offer Timetable**

Event	Date
Trading halt	Thursday, 5 December 2024
Announcement of completion of Placement and recommencement of trading	Monday, 9 December 2024
Settlement of Placement	Thursday, 12 December 2024
Allotment and normal trading of New Shares issued under the Placement	Friday, 13 December 2024

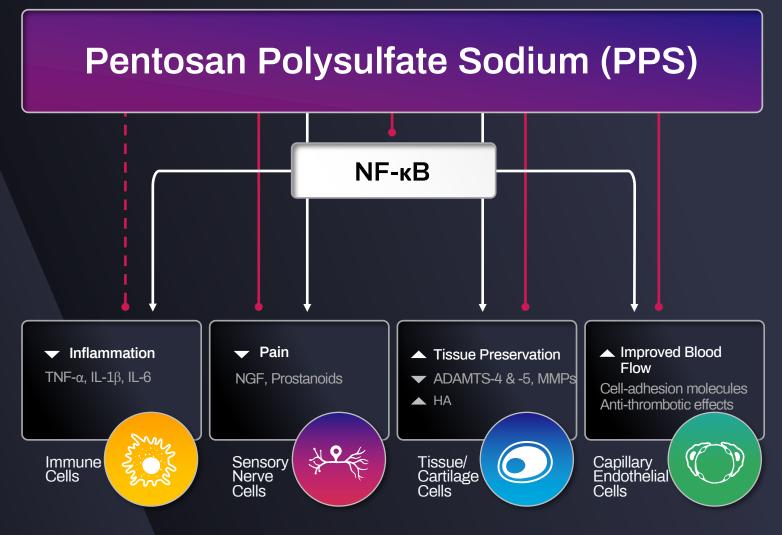
This timetable is indicative only and subject to change. The Company reserves the right to vary the above dates and times, subject to ASX Listing Rules and the Corporations Act 2001 and other applicable laws.



# Mechanism of action

- Multiple modes of action
- Previous phase 2B, SAS, and EAP experience
- New phase 2 data





ADAMTS = a disintegrin and metalloproteinase with thrombospondin motif; ARGS = aggrecan amino acids alanine, arginine, glycine, and serine; NF-κB = nuclear factor kappa B; NGF = nerve growth factor; C2C = c-terminal telopeptide; COMP = cartilage oligomeric matrix protein; CTX–II = Type II collagen; IL= Interleukin; TNF-α = tumor necrosis factor alpha; TIMP-1 = tissue inhibitor matrix metalloproteinase 1.

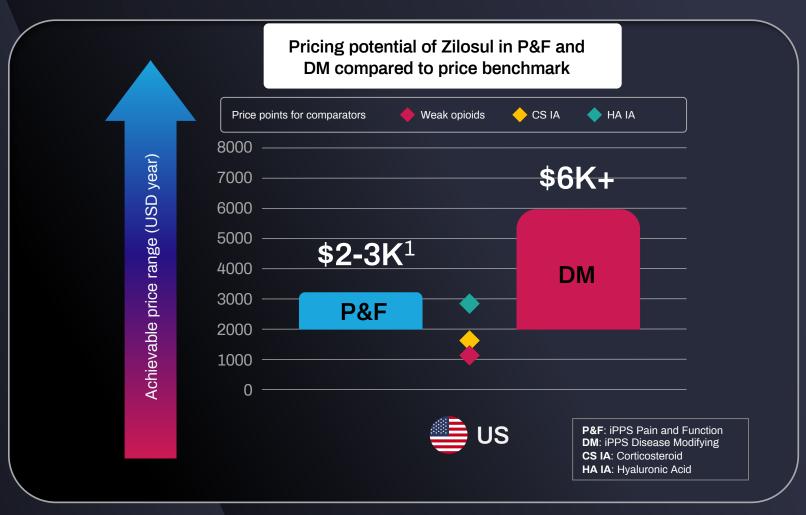
# Extensive market protection

- Multiple method of use patents, continually refined and expanded with additional patents being pursued.
- IP portfolio expansion as new data is obtained from clinical and pre-clinical studies being undertaken.



# Target pricing

- Achievable for P&F label with PAR current clinical program
- Price is per course of treatment.
- High gross margin on sales.



- 1. Reasonable price higher prices may be achievable but will likely trigger restrictions on use by payers
- 2. Zilosul is the registered name for iPPS for OA



## **Risk Factors**

Shareholders should consider the investment in the context of their individual risk profile for speculative investments, investment objectives and individual financial circumstances. Each Shareholder should consult their own stockbroker, solicitor, accountant or other professional adviser before deciding whether or not to invest in the New Shares offered under this document (Securities).

An investment in Securities should be regarded as very speculative and involves many risks. The Securities carry no guarantee with respect to the payment of dividends, returns of capital or the market value of those Securities.

If any of the following risks actually occurs, our business, prospects, financial condition and results of operations could be materially and adversely affected, the trading price of the Shares could decline and you could lose all or part of your investment.

This section identifies some of the major risks associated with an investment in the Company. Intending Applicants before any decision is made to subscribe for shares should read the Company's prior continuous disclosure announcement to the ASX market in order to fully appreciate the risks particular to an investment in a medical device company such as Paradigm Biopharmaceuticals Limited and in particular the risks faced by the Company in the continued development and proposed commercialisation of its intellectual property rights.

Paradigm's assets and business is subject to a number of risk factors both specific to its assets / business and of a general nature which may impact on its future performance and forecasts. This is not an exhaustive list of the relevant risks and the risks set out below are not in order of importance. Many of the risks below are outside the control of Paradigm and its directors. These risks and other risks not specifically referred to below, may in the future materially adversely affect the value of Paradigm shares and their performance. Accordingly, no assurance or guarantee of future performance or profitability is given by Paradigm in respect of Paradigm shares or Paradigm's business / assets.

Before subscribing for Paradigm shares, prospective investors should carefully consider and evaluate Paradigm, its assets and its business and whether Paradigm shares are suitable to acquire having regard to their own investment objectives and financial circumstances and taking into consideration the material risk factors, as set out below. There is no guarantee of the price at which Paradigm shares may trade in the future nor any dividends or returns of any nature.

In deciding whether to participate in the Offer, you should also read this document and all ASX announcements by the Company in their entirety and carefully consider the risks outlined in this section. Prospective investors should consult their technology, financial, tax and other professional advisers before making an investment decision.

Clinical Development: Clinical trials are inherently very risky and may prove unsuccessful or non-efficacious, impracticable or costly - which may impact profitability and commercial potential. Failure or negative or inconclusive results can occur at many stages in development and the results of earlier clinical trials are not necessarily predictive of future results. In addition, data obtained from trials is susceptible to varying interpretations, and regulators may not interpret the data as favourably as Paradigm, which may delay, limit or prevent regulatory approval.

## **Risk Factors Continued**

Research and Development Activities: Paradigm's future success is dependent on the performance of Paradigm in current and planned future clinical trials using Pentosan Polysulfate Sodium (PPS) and whether it proves to be a safe and effective treatment. Paradigm's lead product is an experimental product in clinical development and product commercialisation resulting in potential product sales and revenues is likely to be years away, and there is no guarantee that it will be successful. It requires additional research and development, including ongoing clinical evaluation of safety and efficacy in clinical trials and regulatory approval prior to marketing authorisation. Drug development generally is often associated with a high failure rate and until Paradigm is able to provide further clinical evidence of the ability of Paradigm's product to improve outcomes in patients, the future success of the product in developed remains speculative. Research and development risks include uncertainty of the outcome of results, difficulties or delays in development and generally the uncertainty that surrounds the scientific development of pharmaceutical products.

Regulatory Approval: Paradigm operates within a highly regulated industry, relating to the manufacture, distribution and supply of pharmaceutical products. There is no guarantee that Paradigm will obtain the required approvals, licenses and registrations from all relevant regulatory authorities in all jurisdictions in which it operates. The Commencement of clinical trials may be delayed and Paradigm may incur further costs if the Food and Drug Administration (FDA) and other Regulatory Agencies observe deficiencies that require resolution or request additional studies be conducted in addition to those that are currently planned. A change in regulation may also adversely affect Paradigm's ability to commercialise and manufacture its treatments.

Intellectual Property risks: Securing rights in technology and patents is an integral part of securing potential product value in the outcomes of biotechnology research and development. Competition in retaining and sustaining protection of technology and the complex nature of technologies can lead to patent disputes. Paradigm's success depends, in part, on its ability to obtain patents, maintain trade secret protection and operate without infringing the proprietary rights of third parties. Because the patent position of biotechnology companies can be highly uncertain and frequently involves complex legal and factual questions, neither the breadth of claims allowed in biotechnology patents nor their enforceability can be predicted. There can be no assurance that any patents which Paradigm may own, access or control will afford Paradigm commercially significant protection of its technology or its products or have commercial application or that access to these patents will mean that Paradigm will be free to commercialise its drug candidates. The granting of a patent does not guarantee that the rights of others are not infringed or that competitors will not develop technology or products to avoid Paradigm's patented technology. Paradigm's current Patenting strategies do not cover all countries which may lead to generic competition arising in those markets.

Competition: The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change, both in Australia and internationally, and there are no guarantees about Paradigm's ability to successfully compete. Paradigm's products may compete with existing alternative treatments that are already available to customers. In addition, a number of companies, both in Australia and internationally, are pursuing the development of competing products. Some of these companies may have, or may develop, technologies superior to Paradigm's own technology. Some competitors of Paradigm may have substantially greater financial, technical and human resources than Paradigm does, as well as broader product offerings and greater market and brand presence. Paradigm's services, expertise or products may be rendered obsolete or uneconomical or decrease in attractiveness or value by advances or entirely different approaches developed by either Paradigm or its competitors.

Commercial Risk: Paradigm may, from time to time, consider acquisition, licensing, partnership or other corporate opportunities for Paradigm's product development programs. There can be no assurance that any such acquisition, licensing, partnership or corporate opportunities can be concluded on terms that are, or are believed by Paradigm to be, commercially acceptable. In the case of licensing and partnership opportunities, even if such terms are agreed there is a risk that the performance of distributors and the delivery of contracted outcomes by collaborators will not occur due to a range of unforeseen factors relating to environment, technology and market conditions.

Market penetration: Where Paradigm does obtain regulatory approval, future success will also depend on Paradigm's ability to achieve market acceptance and attract and retain customers, which includes convincing potential consumers and partners of the efficacy of Paradigm's products and Paradigm's ability to manufacture a sufficient quantity and quality of products at a satisfactory price. There is no guarantee that Paradigm will be successful in obtaining regulatory approvals, commercalising a therapeutic product or the degree of market penetration or uptake which is achieved.



## Risk Factors Continued

Manufacturing: There is a risk that scale-up of commercial supplies of Pentosan Polysulfate Sodium (PPS) may present technical and supply difficulties. Any unforeseen difficulty relating to manufacturing or supply of commercial GMP quantities of PPS may negatively impact Paradigm's ability to generate profit in future.

Reliance on Key Personnel: Paradigm is reliant on key personnel employed or engaged by Paradigm. Loss of such personnel may have a material adverse impact on the performance of Paradigm. In addition, recruiting qualified personnel is critical to Paradigm's success. As Paradigm's business grows, it may require additional key financial, administrative, investor and public relations personnel as well as additional staff for operations. While Paradigm believes that it will be successful in attracting and retaining qualified personnel, there can be no assurance of such success. The loss of key personnel or the inability to attract suitably qualified additional personnel could have a material adverse effect on Paradigm's financial performance.

Insurance and Uninsured Risks: Although Paradigm maintains insurance to protect against certain risks in such amounts as it considers to be reasonable, its insurance will not cover all the potential risks associated with its operations and insurance coverage may not continue to be available or may not be adequate to cover any resulting liability. It is not always possible to obtain insurance against all such risks and Paradigm may decide not to insure against certain risks because of high premiums or other reasons.

Product Safety and Efficacy: Serious or unexpected health, safety or efficacy concerns with Paradigm's (or similar third party) products may expose Paradigm to reputational harm or reduced market acceptance of its products, and lead to product recalls and/or product liability claims and resulting liability, and increased regulatory reporting. There can be no guarantee that unforeseen adverse events or manufacturing defects will not occur. Paradigm will seek to obtain adequate product liability insurance at the appropriate time in order to minimise its liability to such claims however there can be no assurance that adequate insurance coverage will be available at an acceptable cost. Any health, safety or efficacy concerns are likely to lead to reduced customer demand and impact on potential future profits of Paradigm.

Additional requirements for capital: The funds raised under the Offer complement the Company's existing cash reserves and available current assets and are considered sufficient to meet the current proposed objectives of the Company. Additional funding may be required in the event future costs exceed the Company's estimates or future revenues are below the Company's estimates and to effectively implement its business and operations plans in the future, to take advantage of opportunities for acquisitions, joint ventures or other business opportunities, and to meet any unanticipated liabilities or expenses which the Company may incur. The Company may seek to raise further funds through equity or debt financing, joint ventures or other means. Failure to obtain sufficient financing for the Company's activities and future projects may result in delay and indefinite postponement of operations and further development programmes. There can be no assurance that additional finance will be available when needed or, if available, the terms of the financing might not be favourable to the Company and might involve substantial dilution to Shareholders.

Litigation Risk: In the ordinary course of conducting its business, Paradigm is exposed to potential litigation and other proceedings, including through claims of breach of agreements, intellectual property infringement or in relation to employees (through personal injuries, occupational health and safety or otherwise). If such proceedings were brought against Paradigm, it would incur considerable defence costs (even if successful), with the potential for damages and costs awards against Paradigm if it were unsuccessful, which could have a significant negative financial effect on Paradigm's business. Changes in laws can also heighten litigation risk (for example, antitrust and intellectual property). Circumstances may also arise in which Paradigm, having received legal advice, considers that it is reasonable or necessary to initiate litigation or other proceedings, including, for example, to protect its intellectual property rights. There has been substantial litigation and other proceedings in the pharmaceutical industry, including class actions from purchasers and end users of pharmaceutical products.



## Risk Factors Continued

**Economic Risks:** General economic conditions, movements in interest and inflation rates and currency exchange rates may have an adverse effect on the Company's activities, as well as on its ability to fund those activities.

**Taxation:** The acquisition and disposal of Shares will have tax consequences, which will differ depending on the individual financial affairs of each investor. All prospective investors in the Company are urged to obtain independent financial advice about the consequences of acquiring Shares from a taxation viewpoint and generally. To the maximum extent permitted by law, the Company, its officers and each of their respective advisors accept no liability and responsibility with respect to the taxation consequences of subscribing for Shares under this document.

**Dividend Guidance:** No assurances can be given in relation to the payment of future dividends. Future determinations as to the payment of dividends by Paradigm will be at the discretion of Paradigm and will depend upon the availability of profits, the operating results and financial conditions of Paradigm, future capital requirements, covenants in relevant financing agreements, general business and financial conditions and other factors considered relevant by Paradigm. No assurance can be given in relation to the level of tax deferral of future dividends. Tax deferred capacity will depend upon the amount of capital allowances available and other factors.

Climate Risk: There are a number of climate-related factors that may affect the operations and proposed activities of the Company. The climate change risks particularly attributable to the Company include: (a) the emergence of new or expanded regulations associated with the transitioning to a lower-carbon economy and market changes related to climate change mitigation. The Company may be impacted by changes to local or international compliance regulations related to climate change mitigation efforts, or by specific taxation or penalties for carbon emissions or environmental damage. These examples sit amongst an array of possible restraints on industry that may further impact the Company and its profitability. While the Company will endeavour to manage these risks and limit any consequential impacts, there can be no guarantee that the Company will not be impacted by these occurrences; and (b) climate change may cause certain physical and environmental risks that cannot be predicted by the Company, including events such as increased severity of weather patterns and incidence of extreme weather events and longer-term physical risks such as shifting climate patterns. All these risks associated with climate change may significantly change the industry in which the Company operates.

Market Conditions: Share market conditions may affect the value of the Company's quoted securities regardless of the Company's operating performance. Share market conditions are affected by many factors such as: (a) general economic outlook; (b) introduction of tax reform or other new legislation; (c) interest rates and inflation rates; (d) changes in investor sentiment toward particular market sectors; (e) the demand for, and supply of, capital; and (f) terrorism or other hostilities. The market price of securities can fall as well as rise and may be subject to varied and unpredictable influences on the market for equities. Neither the Company nor the Directors warrant the future performance of the Company or any return on an investment in the Company.

Speculative investment: The risk factors described above, and other risks factors not specifically referred to, may have a materially adverse impact on the performance of the Company and the value of the Securities. Prospective investors should consider that an investment in the Company is highly speculative. There is no guarantee that the Securities offered under this document will provide a return on capital, payment of dividends or increases in the market value of those Securities. Before deciding whether to subscribe for Securities under this document you should read this document in its entirety and consider all factors, taking into account your objectives, financial situation and needs.

Forward-Looking Statements: There can be no guarantee that the assumptions and contingencies on which any forward-looking statements, opinions and estimates contained in materials published by Paradigm are based will ultimately prove to be valid or accurate. The forward-looking statements, opinions and estimates depend on various factors, including known and unknown risks, many of which are outside the control of Paradigm. Actual performance of Paradigm may materially differ from forecast performance.



## International Offer Restrictions

This document does not constitute an offer of new ordinary shares ("New Shares") and Options of the Company in any jurisdiction in which it would be unlawful. In particular, this document may not be distributed to any person, and the New Shares and Options may not be offered or sold, in any country outside Australia except to the extent permitted below.

#### Hong Kong

WARNING: This document has not been, and will not be, registered as a prospectus under the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong, nor has it been authorised by the Securities and Futures Commission in Hong Kong pursuant to the Securities and Futures Ordinance (Cap. 571) of the Laws of Hong Kong (the "SFO"). Accordingly, this document may not be distributed, and the New Shares and Options may not be offered or sold, in Hong Kong other than to "professional investors" (as defined in the SFO and any rules made under that ordinance).

No advertisement, invitation or document relating to the New Shares and Options has been or will be issued, or has been or will be in the possession of any person for the purpose of issue, in Hong Kong or elsewhere that is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to New Shares and Options that are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors. No person allotted New Shares and Options may sell, or offer to sell, such securities in circumstances that amount to an offer to the public in Hong Kong within six months following the date of issue of such securities.

The contents of this document have not been reviewed by any Hong Kong regulatory authority. You are advised to exercise caution in relation to the offer. If you are in doubt about any contents of this document, you should obtain independent professional advice.

#### New Zealand

This document has not been registered, filed with or approved by any New Zealand regulatory authority under the Financial Markets Conduct Act 2013 (the "FMC Act").

The New Shares and Options are not being offered or sold in New Zealand (or allotted with a view to being offered for sale in New Zealand) other than to a person who:

- is an investment business within the meaning of clause 37 of Schedule 1 of the FMC Act;
- meets the investment activity criteria specified in clause 38 of Schedule 1 of the FMC Act;
- is large within the meaning of clause 39 of Schedule 1 of the FMC Act:
- is a government agency within the meaning of clause 40 of Schedule 1 of the FMC Act; or
- is an eligible investor within the meaning of clause 41 of Schedule 1 of the FMC Act

## International Offer Restrictions Continued

#### Singapore

This document and any other materials relating to the New Shares and Options have not been, and will not be, lodged or registered as a prospectus in Singapore with the Monetary Authority of Singapore. Accordingly, this document and any other document or materials in connection with the offer or sale, or invitation for subscription or purchase, of New Shares and Options, may not be issued, circulated or distributed, nor may the New Shares and Options be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore except pursuant to and in accordance with exemptions in Subdivision (4) Division 1, Part 13 of the Securities and Futures Act 2001 of Singapore (the "SFA") or another exemption under the SFA.

This document has been given to you on the basis that you are an "institutional investor" or an "accredited investor" (as such terms are defined in the SFA). If you are not such an investor, please return this document immediately. You may not forward or circulate this document to any other person in Singapore.

Any offer is not made to you with a view to the New Shares and Options being subsequently offered for sale to any other party in Singapore. On-sale restrictions in Singapore may be applicable to investors who acquire New Shares and Options. As such, investors are advised to acquaint themselves with the SFA provisions relating to resale restrictions in Singapore and comply accordingly.

#### **United Kingdom**

Neither this document nor any other document relating to the offer has been delivered for approval to the Financial Conduct Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended ("FSMA")) has been published or is intended to be published in respect of the New Shares and Options.

The New Shares and Options may not be offered or sold in the United Kingdom by means of this document or any other document, except in circumstances that do not require the publication of a prospectus under section 86(1) of the FSMA. This document is issued on a confidential basis in the United Kingdom to "qualified investors" within the meaning of Article 2(e) of the UK Prospectus Regulation. This document may not be distributed or reproduced, in whole or in part, nor may its contents be disclosed by recipients, to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) received in connection with the issue or sale of the New Shares and Options has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of the FSMA does not apply to the Company.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 ("FPO"), (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO or (iii) to whom it may otherwise be lawfully communicated ("relevant persons"). The investment to which this document relates is available only to relevant persons. Any person who is not a relevant person should not act or rely on this document.

#### **United States**

This document does not constitute an offer to sell, or a solicitation of an offer to buy, securities in the United States. The New Shares and Options (and the underlying ordinary shares) have not been, and will not be, registered under the US Securities Act of 1933 or the securities laws of any state or other jurisdiction of the United States. Accordingly, the New Shares and Options (and the underlying ordinary shares) may not be offered or sold in the United States except in transactions exempt from, or not subject to, the registration requirements of the US Securities Act and applicable US state securities laws.

The New Shares and Options (and the underlying ordinary shares) will only be offered and sold in the United States to:

- "institutional accredited investors" within the meaning of Rule 501(a)(1), (2), (3), (7), (8), (9) and (12) under the US Securities Act; and
- dealers or other professional fiduciaries organized or incorporated in the United States that are acting for a discretionary or similar account (other than an estate or trust) held for the benefit or account of persons are not US persons and for which they exercise investment discretion, within the meaning of Rule 902(k)(2)(i) of Regulation S under the US Securities Act.

## Paul Rennie

**Managing Director** 

Email: prennie@paradigmbiopharma.com

## Simon White

Director IR

Email: <a href="mailto:swhite@paradigmbiopharma.com">swhite@paradigmbiopharma.com</a>



For more information please visit: paradigmbiopharma.com

