ASX RELEASE

30 January 2018

December 2017 Quarter Update

Key Highlights:

- **Post quarter end, AFL legend Greg Williams successfully treated with injectable Pentosan Polysulfate Sodium (PPS) for knee Osteoarthritis (OA) with concurrent Bone Marrow Lesions (BMLs).**
- **Greg Williams is one of a growing number of past and present elite sportspeople being treated by their doctors with PPS under the TGA SAS - demonstrating the unmet medical need in treating OA.**
- **Over the past 12 months, approximately 40 sportspeople have been successfully treated with an average reduction in pain scores of more than 50%.**
- **CY 2018 expected to be pivotal year due to the release of commercially valuable Phase 2 trial data with the Company's two arthritis Phase 2 trials on schedule.**
- **ACL trial successful with both primary and secondary endpoints met.**

Paradigm Biopharmaceuticals Ltd (ASX:PAR) is pleased to provide its quarterly update for the three months ending 31 December 2017 to accompany its Appendix 4C cash flow report for the period.

Clinical Development Progress

Successful treatment of AFL Legend Greg Williams

Post quarter end, Paradigm announced that AFL legend Greg "Diesel" Williams had been successfully treated by his doctor with Pentosan Polysulfate Sodium (PPS) for osteoarthritis (OA) with concurrent bone marrow lesions (BMLs). Greg is one of a number of past and present elite sportspeople being treated by their doctors with PPS - demonstrating the unmet medical need in treating OA.

The AFL star, who played for Geelong, the Sydney Swans and the Carlton Football Club, was a dual Brownlow medallist, a member of the AFL team of the century, a Norm Smith medallist and a Premiership player. Now in his early 50's, Greg was diagnosed with OA and was treated by his doctor with PPS under the Therapeutic Goods Administration's (TGA's) Special Access Scheme (SAS).

Over the course of his AFL career, Williams had several knee injuries and a number of arthroscopic procedures. He eventually developed OA with concurrent BMLs and was not responding to the current standard of care treatments. Before PPS treatment, Williams was often suffering from general discomfort due to his knee OA and was often in severe pain after exercise. Williams' doctor treated him with injectable PPS (2mg/Kg) twice a week for four weeks (i.e., a total of eight subcutaneous injections).

Following PPS treatment, Williams had a significant reduction in pain and a reduction in knee effusion (swelling) which helped reduce discomfort after exercise and dramatically improved knee function. Williams is also reporting an improved quality of life now that he is able to carry out physical tasks that he previously avoided due to discomfort and excessive pain levels.

In addition, there are a number of other current and past players being treated by Australian Football League (AFL) doctors with PPS for both acute and chronic sporting injuries.

During the past 12 months, approximately 40 past and present elite sportspeople have been successfully treated with PPS. On average, the patients' pain scores have reduced by more than 50%. Doctors have also reported that their patients have had significant improvements in knee function scores and reduction in bone marrow edema lesion (BML) volume (as measured on an MRI).

Treated conditions include post traumatic OA, osteochondral defects, degenerative OA and meniscal tears - all conditions with concurrent and intractable BMLs. All of these conditions were successfully treated (reduction in pain and improved joint function) with PPS after the standard of care had failed to provide symptomatic relief.

Significant market opportunity

OA affects in excess of 30 million people in the United States alone, which is expected to rise significantly with an aging population, representing a blockbuster opportunity for Paradigm.[1]

Interestingly, sportspeople are at a much higher risk of developing OA, especially at earlier stages in life. The University of Nottingham Study conducted a survey of 1207 male ex-footballers and 4085 men in the general population in the United Kingdom. It is the first large-scale cross-sectional study to compare outcomes of knee pain, radiographic OA and the requirement for knee arthroplasty (knee replacement) in ex-footballers versus men in the general population. The prevalence of all knee outcomes was almost two to three times higher in ex-footballers even after adjustment for known risk factors including significant knee injury.

The prevalence of knee pain by age reached its peak 10–15 years earlier in ex-footballers compared with men in the general population.

Knee injury is the main attributable risk factor. Even after adjustment for recognised risk factors, knee OA appears to be an occupational hazard of professional football. Knee injury, a high body mass index

[1] https://www.arthritis.org/Documents/Sections/About-Arthritis/arthritis-facts-stats-figures.pdf

and a high-risk occupation (post retirement from football) are the main attributable risk factors for the increases in knee pain, radiographic OA and knee replacement in ex-professional footballers.[2]

Growing evidence that PPS could be a successful treatment for sportspeople developing OA

Pharmaceutical treatments for sporting injuries and degenerative OA are multi-billion dollar markets with significant unmet medical need. Current medications do not provide adequate pain relief and have potential adverse effects when used to treat chronic pain and inflammation. **Importantly, PPS is neither a steroid or an opioid and is not a prohibited substance in sport.**

Sports which involve running, pivoting, twisting and turning such as football, rugby, soccer and basketball put participants at a higher risk of developing OA and developing OA at an earlier age compared to the general population.

Two Arthritis Phase 2 Trials on Schedule

In November, Paradigm announced that its two arthritis Phase 2 trials were ahead of schedule meaning commercially valuable Phase 2 randomised double-blind placebo-controlled data will be available in CY 2018.

Results for the Company's Phase 2b trial for Osteoarthritis (OA) and Bone Marrow Lesions (BML) are expected in Q4 CY 2018. Currently, 26 out of 100 participants have been recruited to date from just two sites. As of early January 2018, all five sites for the trial are operational and Paradigm expects this strong momentum to continue.

Paradigm's Phase 2a trial for Ross River virus (RRV) is also progressing strongly and results for the trial are expected in Q2 CY 2018. More than 70% of participants have been recruited and an influx of participants is expected over the coming months as mosquito numbers rise over the summer.

ACL Trial Success

In November, Paradigm announced that its Phase 2a clinical trial in BMLs (bone bruising) met its primary endpoint of safety and tolerability. Additionally, the secondary endpoint was met and showed a statistically significant reduction in BML volume.

The Company received the top-line results following analysis of safety data on 11 people who participated in the Phase 2a open label trial to evaluate PPS for the treatment of bone marrow lesions associated with acute anterior cruciate ligament (ACL) injuries. Nine of the 11 participants completed the course of treatment, while two participants withdrew for family and other reasons unrelated to PPS.

These results indicate that PPS has potential to significantly improve recovery from acute ACL injury, with significant improvement in both BML volumes and effusion volumes, function improvement and improved long-term outcomes for patients.

[2]Fernandes GS, et al. Br J Sports Med 2017; 0:1–7. doi:10.1136/bjsports-2017-097503

Financial and Corporate Update

In November, Paradigm raised $5.75 million via a significantly oversubscribed Placement, with the raising expanded to meet very strong demand from existing and new institutional, sophisticated and professional investors.

The raising means Paradigm is well funded into CY 2019 and importantly, post the completion of both the Phase 2a RRV and the Phase 2b OA trials due to be completed at the end of CY 2018.

As at 31 December 2017, the Company's cash balance was $6 million. The Appendix 4C report attached contains the Company's cash flow statement for the quarter.

Outlook

Paradigm expects 2018 to be a pivotal year with the completion of both the arthritis Phase 2 clinical trials (RCT) - both major value inflection points for the Company.

In addition, Paradigm plans to generate more valuable Real World Data from doctors treating patients under the TGA SAS.

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+Rule 4.7B

Appendix 4C

Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16

Name of entity

Paradigm Biopharmaceuticals Limited

ABN	**Quarter ended ("current quarter")**
94 169 346 963	31 December 2017

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (6 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) research and development	(845)	(2288)
	(b) product manufacturing and operating costs	-	-
	(c) advertising and marketing	-	-
	(d) leased assets	-	-
	(e) staff costs	(136)	(268)
	(f) administration and corporate costs	(195)	(717)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	6	9
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	1,774
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(1,170)**	**(1,490)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(1)	(3)
	(b) businesses (see item 10)	-	-
	(c) investments	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
	(d) intellectual property	(45)	(104)
	(e) other non-current assets	-	-
2.2	Proceeds from disposal of:		
	(a) property, plant and equipment	-	-
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**(46)**	**(107)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of shares	5,550	5,550
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(542)	(542)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**5,008**	**5,008**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of quarter/year to date	2,210	2,591
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,170)	(1,490)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(46)	(107)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	5,008	5,008

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (6 months) $A'000**
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of quarter**	**6,002**	**6,002**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	6,002	2,210
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**6,002**	**2,210**

6.	**Payments to directors of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to these parties included in item 1.2	60
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Payments to Chairman and Non-Executive Directors

7.	**Payments to related entities of the entity and their associates**	**Current quarter $A'000**
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

8.	**Financing facilities available** *Add notes as necessary for an understanding of the position*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
8.1	Loan facilities	NIL	NIL
8.2	Credit standby arrangements	NIL	NIL
8.3	Other (please specify)	NIL	NIL

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

9.	**Estimated cash outflows for next quarter**	**$A'000**
9.1	Research and development	1,129
9.2	Product manufacturing and operating costs	-
9.3	Advertising and marketing	-
9.4	Leased assets	-
9.5	Staff costs	162
9.6	Administration and corporate costs	204
9.7	Other (provide details if material)	-
9.8	**Total estimated cash outflows**	**1,495**

10.	**Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)**	**Acquisitions**	**Disposals**
10.1	Name of entity	N/A	N/A
10.2	Place of incorporation or registration	N/A	N/A
10.3	Consideration for acquisition or disposal	N/A	N/A
10.4	Total net assets	N/A	N/A
10.5	Nature of business	N/A	N/A

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.



30 January 2018

Sign here: ..... Date: .....
Company secretary

Kevin Hollingsworth

Print name: .....

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.

2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.