PHYLOGICA

BREAKTHROUGH PEPTIDE THERAPEUTICS

ASX ANNOUNCEMENT

Operational update – Q1 2019

29 April 2019: The second quarter of 2019 is the most important time period in the company's history. We have started assessing the efficacy of our 'second generation' Cell Penetrating Peptides (CPPs) in animal models. The results of these models hold the key to defining the point of difference of our delivery platform in a setting that informs the commercial relevance of our technology.

In 2017, the company undertook a comprehensive strategic review. The outcome of that review can be distilled into three recommendations:

1) Enrich our peptide libraries with a greater diversity of source organisms;
2) Screen the enriched libraries in a high throughput format in order to adequately sample them; and
3) Progress the 'second generation' CPPs that represent the output of those screens through to animal model readouts (a critical milestone in the development of a therapeutic molecule)

The first two recommendations have been completed and the coming quarter provides the acid test for the third. Success will be retaining the *in vitro* (test tube) outperformance of our second generation CPPs over competitive technologies *in vivo* (animal models). Delivering a sufficient amount of cargo inside cells in a safe manner remains the rate-limiting step in the development of a precise and highly potent class of therapeutics. If we can demonstrate that our second generation CPPs can achieve this objective *in vivo* then we have navigated the major pre-clinical milestone in the development of our platform.

We have previously advised that we are building our delivery platform in the context of Anti-Sense Oligonucleotide (ASO) drug cargoes (see ASX announcement of 15 October 2018). Our choice of drug cargo has been complemented by a decision on our initial target tissue of interest. We are seeking to deliver these ASO cargoes into the back of the eye to address diseases occurring in the retina. CPP-mediated ASO delivery holds a number of important advantages over other alternative therapeutic approaches (including gene therapy) in this specific environment – notably, an even distribution of drug throughout the affected tissue and correction of protein levels within normal parameters, amongst others.

The first quarter of 2019 has been directed towards:

1) setting up the animal models required to validate our CPPs in this context (rodent models measuring exon skipping of a 'reporter ASO' – see ASX announcement of 12 March 2019); and
2) identifying the second generation CPPs that will be tested in these models in Q2; and
3) complementing our existing Scientific Advisory Board with expertise in ASO technology through the appointment of Dr. Rakesh Veedu (ASX announcement 22 March 2019).

Encouragingly, the assessment of our 'first generation' CPPs in the initial set-up of these models demonstrated approximately equivalent performance to the current reference CPP for clinical development (known as the 'B peptide'). These results were achieved despite our CPPs being tested in an un-stabilised and un-optimised format (the 'B peptide' has been chemically stabilised and optimised).

We have approximately 40 second generation CPPs to test during Q2 before identifying a preferred 'lead' candidate/s. The lead candidates will be optimised for drug-like properties and undergo testing in larger animals (both efficacy and toxicity evaluation) before progressing to the clinic.

Phylogica will hold an investor morning to provide shareholders with an update on the evaluation of our second generation CPP candidates in the animal models described above in June. Further details will be provided closer to the date.

Delivering drug cargoes across cell membranes is the major challenge in the development of a revolutionary new class of drugs. Cell Penetrating Peptides (CPPs) can overcome this challenge and provide access to the 'undruggable genome' – the highest value drug targets that exist inside cells. Phylogica (ASX:PYC) owns the world's most structurally diverse peptide library and is using these libraries to identify a new generation of highly efficient CPPs.

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For further information, please contact:

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About Phylogica

Phylogica Limited (ASX: PYC) is a biotech company focused on commercialising its intracellular drug delivery platform and screening its peptide libraries to identify drug cargoes for development against a wide range of disease targets. Phylogica controls access to the world's most structurally diverse source of peptides which have the ability to act as effective drug delivery agents and drug cargoes, penetrating cell walls to reach previously 'undruggable' targets across a range of disease types. Phylogica's platform of proprietary cell penetrating peptides has been validated across multiple animal models for the ability to deliver a diverse range of drug cargoes into cells. The company has collaborations with several pharmaceutical companies including Roche, Medimmune, Pfizer, Janssen and Genentech.

Forward looking statements

Any forward-looking statements in this ASX announcement have been prepared on the basis of a number of assumptions which may prove incorrect and the current intentions, plans, expectations and beliefs about future events are subject to risks, uncertainties and other factors, many of which are outside Phylogica's control. Important factors that could cause actual results to differ materially from assumptions or expectations expressed or implied in this ASX announcement include known and unknown risks. Because actual results could differ materially to assumptions made and Phylogica's current intentions, plans, expectations and beliefs about the future, you are urged to view all forward-looking statements contained in this ASX announcement with caution. Phylogica undertakes no obligation to publicly update any forward-looking statement whether as a result of new information, future events or otherwise.

This ASX announcement should not be relied on as a recommendation or forecast by Phylogica. Nothing in this ASX announcement should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

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Phylogica Ltd

ABN 48 098 391 961

+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

PHYLOGICA LIMITED

ABN	**Quarter ended ("current quarter")**
48 098 391 961	31 MARCH 2019

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) research and development	(1,698)	(4,715)
	(b) product manufacturing and operating costs	-	-
	(c) advertising and marketing	-	-
	(d) leased assets	-	-
	(e) staff costs	(164)	(764)
	(f) administration and corporate costs	(47)	(426)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	13	45
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	R&D Rebate	-	2,904
1.9	**Net cash from / (used in) operating activities**	**(1,896)**	**(2,956)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) property, plant and equipment *(Re-location to Harry Perkins Institute)*	(239)	(239)
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	-	-
	(e) other non-current assets	-	-

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
2.2	Proceeds from disposal of:		
	(a) property, plant and equipment	2	2
	(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**	**(239)**	**(237)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of shares	-	9,120
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	-	(503)
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**	**-**	**8,617**

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	10,706	3,147
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,896)	(2,956)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(239)	(237)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	8,617
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of quarter**	**8,571**	**8,571**

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	1,550	686
5.2	Call deposits	7,021	10,020
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)**	**8,571**	**10,706**

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	164
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

Directors Fees and Superannuation

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	-	-
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	-	-

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.

N/A

9.	**Estimated cash outflows for next quarter**	**$A'000**
9.1	Research and development	1,065
9.2	Product manufacturing and operating costs	-
9.3	Advertising and marketing	-
9.4	Leased assets	-
9.5	Staff costs	975
9.6	Administration and corporate costs	105
9.7	Other	-
9.8	**Total estimated cash outflows**	**2,145**

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

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.

Sign here: Date: 29th April 2019

(Company secretary)

Print name: Kevin Hart

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.