



Memphasys Limited

ABN 33 120 047 556

Financial Year Ended 30 June 2018

Appendix 4E: Performance Commentary

Highlights

Memphasys' platform technology enables efficient and cost effective separation of valuable cells and proteins from biological fluids utilising its proprietary patented hydrogel membranes and electrophoresis processes.

Its lead program, Felix, efficiently separates the best quality, least DNA damaged sperm from a semen sample in preparation for human IVF technologies. The device can also be used for animal artificial reproduction technology ("ART").

The Felix Device for Human IVF technologies

Memphasys is accelerating the development and commercialisation of the Felix device, a unique product with patented IP to address male factor infertility.

Felix separates the most viable sperm in a semen sample for use in IVF processes and provides unique and critical advantages over current sperm processing methods.

It is a cost-effective process that gently and automatically processes semen samples in preparation for IVF procedures. It takes less than 5 minutes, compared with 30 - 40 minute current lab-based processes, "Density Gradient Centrifuging" and "Swim Up", which are laborious as they involve multiple steps of washing and centrifuging.

Most notably these current processes also do not reliably select the best sperm.

The work on the Felix device was recognised by the NSW Department of Health, which provided a special \$400,000 grant for furthering the commercialisation of the device in the human IVF field.

Great progress towards commercialising the Felix device has been made over the past year.

In the first quarter of financial year 2018, Memphasys developed five novel prototype cartridges with re-usable parts to enable optimisation studies to be conducted on the cartridge's design and operation.

In collaboration with the University of Newcastle, under the guidance of world renowned fertility expert, Prof. John Aitken, and with a leading IVF Australian company, Memphasys has now completed testing and optimising operating parameters of these test cartridges.

These re-usable cartridges have now been tested with a wide range of fresh human semen samples, including clinical samples from a commercial IVF clinic.

The design of the final device which will be taken to market has now commenced.

Assisted Reproduction Applications for Animals

During the financial year, The University of Newcastle researchers successfully demonstrated that the re-usable cartridge was able to successfully and efficiently process fresh equine semen to provide a harvest of the most viable equine sperm.

Memphasys plans to develop a new, purpose-designed and built device for equine ART processes, including IVF technologies and artificial insemination. The equine device will need to process a much larger semen volume (10 to 100 fold greater) than the human IVF device.

Artificial reproductive technologies are not legally allowed to be applied to thoroughbred horses but can be applied to any other horse types. Target horse types for Memphasys' technology include standard bred horses (trotters), Arabs, eventing and show jumping horses and polo ponies.

Memphasys has also maintained its collaboration with Minitube GmbH ("Minitube"), the largest provider of animal ART products globally, with Minitube being the likely global distributor of commercial animal ART products that Memphasys develops.

Membrane Technology Development

Memphasys is preparing for scaling up its internal membrane production in anticipation of supplying large numbers of cartridges containing membranes for in-vitro testing of the next generation Felix device by 10 - 15 world-leading IVF clinics. It plans to transfer its manufacturing technology to a specialist Australian contractor with appropriate accreditation to produce the membranes reliably, cost effectively and at the requisite scale.

Memphasys is also undertaking a formal review process to critically analyse potential market opportunities of other bio-separations against its technical capabilities.

Memphasys has maintained its strong links with the Chemical and Biomolecular Engineering Department of Melbourne University and will continue to collaborate on new selected bio-separations.

Corporate Achievements

Over the past year Memphasys resolved all former litigation issues.

- On 27 July 2017 it announced that it had successfully concluded mediation with Prime Biologics Pte Ltd and Pulau Manukan Ventures Labuan Ltd and that it had reached full settlement on all outstanding disputes with these parties. Full settlement occurred on 27 September 2017 and the \$250,000 debt plus interest owed to Crescendas Projects Pte Ltd was also announced as settled.
- On 8 September 2017 it announced that the litigation against Transocean Securities Pty Ltd was resolved through mediation.
- On 19 March 2018, Memphasys announced the settlement of the legal action with former financiers, Platinum Road Pty Ltd and its related entity, Bridge Road Capital Pty Ltd.

Financial Performance

Operations in the first half of the financial year were funded with various loans. \$251,330 in loans was provided by directors, Andrew Goodall and Alison Coutts; \$310,000 in loans was provided against the R&D tax refund and \$300,000 in loans was provided in the form of convertible notes issued to Corporate Advisors, Patersons Securities ("Patersons"). All these loans have now been repaid or converted to equity.

In December 2017 Patersons provided funding through the management of a convertible note issue and of a non-renounceable rights issue and placement. This fund-raising provided approximately \$1,500,000 of fresh funds after brokerage fees and the conversion of \$2,055,500 in director and other debts. This fund raising and debt conversion strengthened the Company's Statement of Financial Position and enabled the Company to focus on the development of its first commercial product, the Felix device for human IVF processes.

In May 2018 Patersons arranged further subsequent funding through a private placement to Peters Investments Pty Ltd, an investment company headed by prominent Australian horse owner-breeder Bob Peters who invested A\$1 million into the Company to advance its work in fertility outcomes for both humans and horses. The investment was via a placement organised in 2 tranches: \$650,000 under its then existing placement capacity in May 2018 and the balance of \$350,000 after

shareholder approval was received at the General Meeting of shareholders on 6 August 2018.

Memphasys finalised the financial year with an excess in working capital of \$37,879 (2017: deficiency of \$2,356,669) and with net assets of \$3,351,580 (2017: net assets deficiency \$402,240).

Memphasys incurred a \$401,159 loss from continuing operations (2017: loss of \$1,898,898). There were two main contributors to this improvement over the prior year:

- Legal fees decreased significantly from \$953,809 in the year ended June 2017 to \$95,111 in the current financial year, after the Company resolved legal disputes with PrIME Biologics Private Limited (“PrIME”) and Pulau Manukan Ventures Labuan Ltd in July 2017; with former corporate advisor and fund raiser, Transocean Securities Pty Ltd in September 2017; and with former financiers, Bridge Road Capital Pty Ltd in March 2018.
- A net abnormal gain reached on settlement of debt of \$896,232 as a result of the derecognition of the third party debt of SGD4.8m no longer held by Memphasys and the B class shares in PrIME no longer owned by Memphasys after having resolved the legal dispute with PrIME, as reported on 27 July 2017.

Other notable points in the Statement of Profit and Loss are:

- The capital raising in December 2017 contributed to a substantial reduction of finance costs, from \$217,237 in the first half of the financial year to \$58,133 in the second half of the financial year.
- Uniquely in the Company’s history, the total amount spent on R&D was 1.5 times larger than the G&A expenses. This number is computed by adding expensed R&D costs of \$181,109 to the capitalised R&D costs of \$1,306,441.
- In the financial year 2018 there was a foreign exchange gain of \$81,946 (2017: gain of \$229,556) due to revaluation of the Australian dollar against the Singaporean dollar in the month of July 2017 when Memphasys still had the SGD4.8m debt. With the settlement of the debt, the Company has had no further exposure to foreign exchange.

The tax refund on R&D activities granted by the Federal Government (“Tax Incentive”) is the Company’s sole source of regular revenue. A R&D tax refund of \$592,734 has been received for R&D expenditure incurred in the current financial year. Further to the Tax Incentive, Memphasys received a special grant of \$400,000 in December 2017 from the NSW Medical Device Fund to advance the development of the Felix device. Due to accounting standards, these grants are not entirely recognised as revenue but as deferred income, netted off from Intangible Assets.

Memphasys continued investing in high value-adding bio-separation projects which will not be revenue generating for the next few years, although it may be possible to obtain substantial grant funding in the future for some of this work.

Capitalised expenditure on the two projects in the development stage, as allowed by accounting standards, was as follows:

- Felix, which received an investment of \$1,080,943 (2017: \$633,437); and
- New membranes for the Felix device, which received an investment of \$225,498 (2017: \$206,893).

In December 2017 Memphasys engaged Dr Tim Oldham as a consultant to assist the company map its strategic and operational direction in pursuing new bio-separations beyond the separation of sperm cells from semen. The aim of this work is to build upon Memphasys' core competency in sperm cell separations and develop other cell and cell-like separation technologies that are within Memphasys' technical and financial capability to develop, distinctive, competitive and of high commercial value

Due to this project being in the research stage, its expenditure has been expensed together with the project on other new membranes, which was redirected to new cell separations in January 2018.

Board and management

Memphasys appointed Marjan Mikel to the Board as a non-executive director on 6 June 2018 replacing John Pereira who resigned on the same date.

Outlook for 2019

Development of the human IVF device, Felix

Initially a small quantity of hand-made re-usable cartridges, which will fit into the console, will be made and tested before the next batch of cartridges are made. These will be single-use, fully disposable and hand-made. After these cartridges pass very high scrutiny testing, the final cartridges will be made by injection moulding processes. These final, single-use consumable cartridges will be used by IVF clinics and are projected to build strong recurring revenue for Memphasys.

Memphasys, with its engineering partner, Hydrix, has recently received invaluable feedback from IVF clinicians on the device design and operation which will help it to position Felix to meet regulatory requirements and to be well accepted by IVF clinicians. Ease of use in a busy IVF clinic and streamlining IVF lab work flow were

prime considerations in device design. With Hydrix, Memphasys has also completed a regulatory plan for achieving TGA, CE Mark and FDA registration.

At the European Society for Human Reproduction & Embryology Conference (“ESHRE”) meeting in Barcelona in July 2018, Memphasys personnel met with various IVF Key Opinion Leaders (“KOLs”) who expressed great interest in participating in in-vitro testing of the Felix device. When completed, the Felix clinical device will be placed into selected leading KOL IVF clinics globally and, through in-vitro studies to be conducted in these clinics, its performance in preparing sperm for IVF will be assessed and compared with the current lab-based methods. The Company expects to execute Memorandums of Understanding with KOLs in the September 2018 Quarter, with in-vitro studies to commence in the first quarter of calendar year 2019.

Over the next few months, Memphasys will be designing and then commencing to build the next generation Felix device for the KOL in-vitro assessment. The final device design and build is expected to take about 6-9 months to complete, in readiness for in-vitro testing with these globally recognised centres. The plan is to then run the in-vitro testing which should take around 6 months and to obtain endorsement and early adoption by the KOLs in these centres. These KOLs are expected to write publications. Reports of the testing by the KOLs are expected to favourably coincide with the market launch of the Felix product which is anticipated to occur at around the end of calendar year 2019 in Europe.

Animal ART device development

We expect to continue to develop the animal assisted reproduction product, with initial focus on equine ART processes, initially IVF technologies as these require less viable sperm than artificial insemination.

Bio-separations

The company will continue with the development of new bio-separations and will report on its activities in greater detail in the next reporting period.

Matters subsequent to the end of the financial year

The following events occurred subsequent to end of the financial year:

- In early July 2018, Memphasys senior executives attended the European Society for Human Reproduction & Embryology Conference in Barcelona, Spain. At the conference, executives met and progressed discussions with a range of European and Middle East-based Key Opinion Leaders.
- On 3 July 2018 Memphasys announced that it had resolved, subject to shareholder approval, to undertake a consolidation of the Company's issued capital on a 15:1 basis. The purpose of Consolidation was to decrease the number of shares on issue to a more manageable quantity and to enable smoother, less volatile share trading. A resolution to this effect was passed by shareholders at an extraordinary general meeting on 6 August 2018 and finally the issued capital was consolidated on 17 August 2018.
- On 16 July 2018 Memphasys published on ASIC's enforceable undertakings register the final summary of the expert report in relation to the 3 year Enforceable Undertaking that it had entered into in December 2014. With this publication there are no residual action items for either Memphasys or ASIC to complete. The Enforceable Undertaking related to potential contraventions of the Corporations Act 2001 between 2009 and 2012 by former directors who are no longer with the Company.
- On 30 July 2018 the Company lodged the R&D tax claim for an amount of \$592,734 which was received from the ATO on 15 August 2018.
- On 9 August 2018 Memphasys received from Peters Investments Pty Ltd the second tranche of the placement of shares for the amount of \$350,000 as part of a \$1M strategic investment.

Memphasys Limited

Appendix 4E

Preliminary final report

Name of entity

Memphasys Limited

ABN or equivalent company
reference

33 120 047 556

Financial year ended ('current period')

30 JUNE 2018

(Comparisons to 30 June 2017)

For announcement to the market

\$A'000

Revenue from continuing ordinary activities	Remained	at	0
Total income from continuing ordinary activities	Decreased	19% to	66
Loss from continuing operations	Decreased	79% to	(401)
Loss from ordinary activities after tax attributable to members	Decreased	80% to	(401)
Net Loss for the period attributable to members	Decreased	80% to	(401)
Dividends (distributions)	Amount per security	Franked amount per security	
Final dividend	Nil	Nil	
Previous corresponding year	Nil	Nil	
Record date for determining entitlements to the dividend, N/A			
For a brief explanation of any of the figures reported above see notes below and also refer to the attached market announcement.			

1. Consolidated Statement of Profit or Loss and Other Comprehensive Income

	For the year ended 30 June 2018 \$	For the year ended 30 June 2017 \$
Continuing operations		
1.1 Revenue		
Revenue from sales or services	-	-
Gross profit	-	-
Grant income	63,178	64,378
Finance income	2,363	2,160
Net gain on settlement of debt	896,232	-
Gain on disposal of assets	-	13,965
General & administration	(986,781)	(1,971,689)
Research & development	(181,109)	(137,594)
Finance cost expense	(276,988)	(129,674)
Foreign exchange gain / (loss)	81,946	259,556
1.2 Loss before income tax	(401,159)	(1,898,898)
1.3 Income tax	-	-
1.4 Loss after tax from continuing operations	(401,159)	(1,898,898)
1.5 Discontinued operations		
Loss from discontinued operations net of tax	-	(100,993)
1.6 Net loss for the year	(401,159)	(1,999,891)
1.7 Net loss attributable to members of parent	(401,159)	(1,999,891)
1.8 Other comprehensive income / (expense) <i>Items that may be reclassified subsequently to profit or loss</i>		
Exchange translation difference	-	-
Total other comprehensive income / (expense) for the year	-	-
1.9 Total comprehensive expense for the year	(401,159)	(1,999,891)

Consolidated accumulated losses

	30 June 2018 \$	30 June 2017 \$
1.10 Accumulated losses at the beginning of the financial year	(37,358,185)	(35,358,294)
1.11 Net loss attributable to members (<i>item 1.7</i>)	(401,159)	(1,999,891)
1.12 Accumulated losses at end of the financial year	(37,759,344)	(37,358,185)

2. Consolidated Statement of Financial Position

	As at 30 June 2018 \$	As at 30 June 2017 \$
Current assets		
2.1 Cash and cash equivalents	201,807	2,349
2.2 Trade and other receivables	-	52,769
2.3 Other current assets	659,454	424,108
2.4 Financial assets	-	3,824,888
2.5 Total current assets	861,261	4,304,114
Non-current assets		
2.6 Property, plant and equipment	22,732	41,281
2.7 Intangible assets	3,333,180	2,956,295
2.8 Total non-current assets	3,355,912	2,997,576
2.9 Total assets	4,217,173	7,301,690
Current liabilities		
2.10 Trade & other payables	222,428	822,000
2.11 Interest bearing liabilities	471,736	5,714,322
2.12 Non-interest bearing liabilities	26,334	26,334
2.13 Lease liabilities	3,552	4,260
2.14 Tax liabilities	10,146	(2,780)
2.15 Short term provisions	89,186	96,647
2.16 Total current liabilities	823,382	6,660,783
Non-current liabilities		
2.17 Lease liabilities	6,746	9,391
2.18 Interest bearing liabilities	-	1,011,544
2.19 Long term provisions	35,465	22,212
2.20 Total non-current liabilities	42,211	1,043,147
2.21 Total liabilities	865,593	7,703,930
2.22 Net (liabilities) / assets	3,351,580	(402,240)
Equity		
2.23 Issued capital	40,095,314	36,019,885
2.24 Reserves	1,015,610	936,060
2.25 Accumulated losses	(37,759,344)	(37,358,185)
2.26 Total equity / (deficiency)	3,351,580	(402,240)

3. Consolidated Statement of Cash Flow

	For the year ended 30 June 2018 \$	For the year ended 30 June 2017 \$
Cash flows from operating activities		
3.1 Receipts from customers	52,769	-
3.2 Payments to suppliers and employees	(1,548,506)	(1,721,336)
3.3 Government grants	831,529	497,355
3.4 Finance costs	(74,211)	(4,614)
3.5 Net cash flows used in operating activities	(738,419)	(1,228,595)
Cash flows from investing activities		
3.6 Interest receipts	2,613	1,211
3.7 Payment for Increase of security term deposit	(4,800)	-
3.8 Payment for purchases of property, plant and equipment	(2,405)	-
3.9 Proceeds from sale of assets	-	13,965
3.10 Proceeds from sale of business	-	118,503
3.11 Payment for purchases of other non-current assets	(1,229,505)	(664,733)
3.12 Receipts relating to discontinued operations	-	(90,379)
3.13 Net cash flows used in investing activities	(1,234,097)	(621,433)
Cash flows from financing activities		
3.14 Proceeds from issues of securities	2,344,349	110,000
3.15 Share issue costs	(350,169)	(107,002)
3.16 Proceeds from third party loans	660,000	350,000
3.17 Repayment of third party loans	(545,156)	(110,000)
3.18 Proceeds from related party borrowings	286,330	1,671,376
3.19 Repayment of related party borrowings	(223,380)	(81,000)
3.20 Net cash flows from financing activities	2,171,974	1,833,374
3.21 Net (decrease)/increase in cash held	199,458	(16,654)
3.22 Cash at beginning of year	2,349	19,003
3.23 Cash and cash equivalents at end of year <i>(see reconciliation of cash)</i>	201,807	2,349

<u>Discontinued activities</u>	30 June 2018 \$	30 June 2017 \$
Operating activities	-	(90,379)
Investing activities	-	-
Financing activities	-	-
Total cash flows relating to discontinued activities		(90,379)

4. Consolidated Statement of Changes in Equity

	Issued capital \$	Share options reserve \$	Accumulated losses \$	Total equity \$
Balance at 1 July 2017	35,019,885	936,060	(37,358,185)	(402,240)
Movement				
Loss for the year	-	-	(401,159)	(401,159)
Total comprehensive income for the year	-	-	(401,159)	(401,159)
Issue of share capital	4,435,434	-	-	4,435,434
Transaction costs on share issue	(360,005)	-	-	(360,005)
Share options issued	-	79,550	-	79,550
Balance at 30 June 2018	40,095,314	1,015,610	(37,759,344)	3,351,580

	Issued capital \$	Share options reserve \$	Accumulated losses \$	Total equity \$
Balance at 1 July 2016	35,909,885	926,060	(35,358,294)	1,477,651
Movement				
Loss for the year	-	-	(1,999,891)	(1,999,891)
Total comprehensive income for the year	-	-	(1,999,891)	(1,999,891)
Issue of share capital	110,000	-	-	110,000
Share options issued	-	10,000	-	10,000
Balance at 30 June 2017	36,019,885	936,060	(37,358,185)	(402,240)

5. Reconciliation of cash

Reconciliation of cash at the end of the year (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.	30 June 2018 \$	30 June 2017 \$
5.1 Cash on hand and at bank	201,807	2,349
5.2 Total cash at end of year (item 3.23)	201,807	2,349

6. Earnings per security (EPS)

	30 June 2018	30 June 2017
6.1 Basic losses per share	(0.01 cent)	(0.34 cents)
6.2 Weighted average number of ordinary shares used as the denominator in calculating basic earnings per share	2,741,024,073	584,514,286
6.3 Diluted losses per share	(0.01 cent)	(0.34 cents)

7. NTA backing

	30 June 2018	30 June 2017
7.1 NTA backing per ordinary security	\$0.00	\$(0.005)

8. Matters subsequent to the end of the financial year

The following events occurred subsequent to end of the financial year:

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Annual General Meeting

The annual general meeting will be held as follows:

Place	30 Richmond Road, Homebush West, NSW 2140
Date	Thursday 22 nd November 2018
Time	11 a.m.
Approximate date the annual report will be available	Monday 10 th September 2018

Compliance statement

- 1 The report has been prepared in accordance with the Corporations Act 2001, the recognition and measurement criteria of Accounting Standards and Urgent Issues Group Interpretations, and complies with other requirements of the law. Accounting Standards, include Australian equivalents to International Financial Reporting Standards "AIFRS". Compliance with AIFRS ensures that the consolidated financial statements and notes of the consolidated entity comply with International Financial Reporting Standards "IFRS".
- 2 This report, and the accounts upon which the report is based, use the same accounting policies.
- 3 This report does give a true and fair view of the matters disclosed.
- 4 This report is based on accounts that are in the process of being audited. Details of any qualifications will follow immediately they are available.
- 6 The entity has a formally constituted Audit Committee.

Signed:



Name: Alison Coutts
Chairman

Date: 21 August 2018