

Appendix 4D

Half year report

Name of the entity:	Memphasys Limited
ABN:	33 120 047 556

Half year ended
('current period')

31 December 2019

Half year ended

('previous corresponding period')

31 December 2018

Results for announcement to the market

\$A'000				
Sales from continuing operations	Remained	0%	to	0
Gross profit from continuing operations	Remained	0%	to	0
Profit (loss) from continuing activities after tax attributable to members	Up	32%	to	(747)
Net Profit (loss) for the period attributable to members	Up	32%	at	(747)
Dividends (distributions)	Amount per security	Franked amount per security		
Final dividend	Nil	Nil		
Previous corresponding period	Nil	Nil		
Record date for determining entitlements to the dividend,	N/A			
Brief explanation of any of the figures reported above:				
Refer to “Principal Activities and review of operations in the directors report attached to the Appendix 4D”				

NTA backing	31 December 2019	31 December 2018
Net tangible asset backing per ordinary security	0.0044 dollars	(0.0021) dollars

Audit/Review Status

This report is based on accounts to which one of the following applies:(Tick one)

The accounts have been audited	<input type="checkbox"/>	The accounts have been subject to review	<input checked="" type="checkbox"/>
The accounts are in the process of being audited or subject to review	<input type="checkbox"/>	The accounts have not yet been audited or reviewed	<input type="checkbox"/>

If the accounts have not yet been audited or subject to review and are likely to be subject to dispute or qualification, a description of the likely dispute or qualification:

The review report is an unqualified review opinion

**Memphasys Limited
and its Controlled Entities
ABN 33 120 047 556**

**Interim Financial Report
for the half-year ended 31 December 2019**

Memphasys Limited and its Controlled Entities
Financial report 31 December 2019

Contents

Directors' Report	3
Consolidated Statement of Profit or Loss and Other Comprehensive Income	9
Consolidated Statement of Financial Position	10
Consolidated Statement of Changes in Equity	11
Consolidated Statement of Cash Flows	12
Notes to the Consolidated Interim Financial Statements	13 – 20
Directors' Declaration	21
Auditor's Independence Declaration	22
Independent Auditor's Review Report to the Members of Memphasys Limited	23 – 24
Corporate Directory	25

Memphasys Limited and its Controlled Entities

Directors' Report

The Directors submit their report for the consolidated entity consisting of Memphasys Limited (and its controlled entities ("MEM" or the "Company" or the "Group") for the half-year ended 31 December 2019.

Directors

The names of the Directors of Memphasys in office at any time during or since the end of the interim period are:

Ms Alison Coutts	Executive Chairman
Mr Andrew Goodall	Non-Executive Director
Mr Marjan Mikel	Non-Executive Director
Mr Shane Hartwig	Non-Executive Director (appointed 31 July 2019)

PRINCIPAL ACTIVITIES

Memphasys is a cell separations company that uses patented electrophoresis processes, patented hydrogels and size exclusion membranes to perform proprietary separations. The main application of this core technology is the selection of high-quality sperm cells from semen for the human IVF market.

Memphasys' unique device for this purpose, "Felix", is approaching commercialisation with initial commercial sales anticipated before the end of CY 2020. The Felix device is positioned to be used in IVF clinics globally to address male factor infertility.

Memphasys has developed the Felix device with world-renowned fertility expert Professor John Aitken and his research team at the University of Newcastle. Monash IVF personnel have provided crucial clinical testing, technical, clinical and regulatory advice to assist Memphasys in bringing the product to market and continue to provide expert advice as the company prepares for first commercial sales. The development and manufacturing team also includes Melbourne-based engineering design and developers, Hydrix Ltd ("Hydrix"), and Sydney-based cartridge manufacturers, W&S Plastics Pty Ltd ("W&S").

REVIEW OF OPERATIONS

The Felix Device

Over the six months to December 31, 2019, the main focus of the Company continued to be the commercial development of the Felix device.

The device gently and efficiently separates sperm in 6 minutes including 3 minutes to hydrate the membranes and 3 minutes to separate the sperm using a simple, single, automated process. This is a marked improvement on the current sperm preparation and separation processes, "density gradient centrifuge" and/or "swim up", that are currently used in IVF clinics. These processes are laborious, variable (not automated), take up 30 to 40 minutes and do not necessarily select the most viable sperm with least DNA damage, but in some instances can damage the sperm DNA.

Capital Raising

To further the development of the Felix device, including the facilitation of a modified tooling strategy for manufacturing the cartridges and to enable the Company to be fully funded into the sales launch of the Felix device in initial key markets, Memphasys successfully raised \$4.2 million, before costs, at \$0.023 per share in a private placement. The two major shareholders, Mr Andrew Goodall and Mr Bob Peters, corner-stoned the Placement.

The raising was in two tranches. \$1,613,333 in Tranche 1 under the Company's existing placement capacity and \$2,586,667 in Tranche 2, which required shareholder approval. After tranche 2, Peters Investments Pty Ltd, the investment company headed by prominent Australian horse owner-breeder Bob Peters, held circa 28% shareholding in Memphasys.

Memphasys Limited and its Controlled Entities

Operating Milestones

Appointment of Felix device manufacturer – W&S Plastics Pty Ltd

On 9 July 2019, Memphasys announced the appointment of W&S, one of the largest custom plastic injection moulding companies in Australia, to manufacture and assemble its Felix disposable cartridges. Its highly accredited facilities are equipped with advanced machinery to deliver custom designs and modifications and high-volume production focused on medical devices.

The appointment of W&S followed an extensive evaluation process. W&S had already yielded significant benefits to Memphasys, by identifying and recommending an initial tooling strategy that would produce cartridges for Key Opinion Leader (“KOL”) assessment, the regulatory approval process and to satisfy the first 12-18 months of commercial sales, after which more expensive tooling would be introduced.

The use of the initial tooling method improves the commercialisation process for the Felix device by the earlier introduction to market of a commercial-grade Felix device, while providing Memphasys a greater degree of flexibility to incorporate minor modifications in design based on KOLs’ feedback. While some tooling costs were brought forward under this strategy the larger tooling costs associated with full scale commercial production were able to be delayed until the Group is well into commercial sales.

Attendance at American Society for Reproductive Medicine (ASRM) Scientific Congress & Expo – key meetings held/ strategic KOL MoU agreement signed

In October 2019, Memphasys representatives attended the 75th ASRM Scientific Congress & Expo in Philadelphia where world renowned fertility expert and co-inventor of the Felix technology Professor John Aitken was a keynote presenter.

The ASRM Congress was a significant success for the Company. Together with Professor Aitken, Company executives held meetings with six KOLs and with three potential and strategically important additional KOLs.

The Company met with executives of India-based Nova Pulse IVF Group and signed a Memorandum of Understanding (MoU) for Nova Pulse to take part as a KOL in the assessment of the Felix device at their head office in Ahmadabad, Gujarat.

Regulatory

Memphasys, together with its regulatory advisor, undertook and completed a review of international regulatory environments, identifying five countries to target initial commercial sales of the Felix device. These countries, Japan, Canada, India, NZ and Iran¹, were considered to have a regulatory framework aligning to the Company’s commercialisation objectives of seeking early commercial sales timeframes.

The Company filed a request for a pre-submission meeting with the Therapeutic Goods Administration in Q4 CY2019. The intent of the submission was to seek a meeting that would clarify regulatory requirements and provide a potential timeframe for Australian regulatory certification.

The Company proposes to initially use regulatory-certified media in the Felix device rather than its own proprietary media to enable faster regulatory certifications in certain markets. However, these commercial media will require the necessary regulatory approvals for expanded indications for use with the Felix device in certain high regulatory markets including Australia, the USA and Europe. MEM is assessing how to best expedite approval for this expanded use of media.

Verification and Validation (“V&V”) process

To be deemed a commercial device, the current devices being manufactured and provided to KOLs must also pass the V&V process. Memphasys has commenced the Felix device V&V process, required to be completed before regulatory registration (if required) and commercial sales in these early target markets can commence, and expects V&V to be completed by mid-CY2020.

¹ Subsequent to reporting date, Memphasys was advised that Iran and other Middle Eastern countries would likely require the Felix device to have passed regulatory approval in Australia, the USA or Europe. Therefore, Iran is no longer classed as an initial target market.

Memphasys Limited and its Controlled Entities

The two long lead time items are manufacturing clean room set up and manufacturing validation at W&S, and biocompatibility studies on cartridge materials sampled from the final validated process. The cleanroom set up commenced in December 2019 and is expected to be completed in March 2020. Cartridge manufacturing validation at W&S will occur post the clean room validation. Biocompatibility studies on the final gamma sterilised product will then follow.

Operations

During the period, Memphasys made the transition from hand assembling CNC-made pre-production devices to manufacturing consoles and cartridges by semi-automated plastic injection moulding. Memphasys also ran quality assays, sterilisation, packaging and labelling tests and worked with W&S on the design and specification of the clean room at their facilities. W&S produced 500 cartridges in October, nearly 150 of which were distributed to Monash IVF, University of Newcastle and Hydrix for preliminary testing. Monash IVF used clinical samples, covering a wide array of fertility issues, whilst the Aitken lab used university donor samples. Hydrix also tested many cartridges with extensive checking on design, manufacturing and performance (apart from clinical performance which was done by Monash IVF) against specification. After this testing was completed satisfactorily, Memphasys shipped 6 consoles and 320 cartridges to the initial 6 KOL sites, Iran, India, China, Japan, Canada and the USA, in December 2019 in preparation for demonstration site visits by Memphasys personnel in January 2020.

In addition to evaluating the device's performance, the KOLs are also assessing the packaging, labelling and instructions for use, to ensure that all KOL sites will be able to follow the study protocol with the instructions and processes provided.

Two of the sites to receive a Felix device as part of the first batch to be tested by KOLs are in the USA and China which along with Europe represent large target markets for the Company. Memphasys expects to deliver further Felix devices to the remaining KOL sites (including in the US and EU) during Q1 2020, noting that the US, EU and China are markets with longer regulatory lead times than the markets Memphasys is targeting for early commercialisation sales.

Initial commercialisation

The markets on table below are highly attractive for Memphasys. A recently released independent research report² concluded these countries will continue to support both a sizable and rising number of IVF procedures each year.

Country	IVF cycles in 2018	Expected fresh IVF cycles by 2026	% growth rate
Japan	269,110	699,110	160%
India	169,800	489,840	188%
Canada	6,360	21,140	232%
New Zealand	5,300	11,190	111%

Subject to positive results from the KOL assessments and receiving the requisite clearances in these markets as required for commercial supply of the device, Memphasys believes these KOL sites offer a ready-made reference customer base for accelerating early sales, which are expected to occur before the end of CY 2020.

ARC Linkage Grant

Memphasys, together with its research partners, was awarded a highly prestigious Australian Research Council (ARC) Linkage grant of \$549,452 in November 2019. Memphasys will also provide an additional \$60,000 p.a. contribution to the program over the 3 years. The grant is for the development of the next generation cell sorters to scale and increase the separation efficiency of viable sperm cells for both humans and animals and for other cell types using electrophoretic technology. In particular, a next generation separation device is required for animal artificial insemination procedures to accommodate the much larger ejaculate volumes and the far greater sperm cell counts in many species of livestock including horses, cows,

² Kunsel & Joshi 2019, 'Global IVF Services Market: Opportunity Analysis and Industry Forecast, 2019-2026', *Allied Market Research*, pp. 1-744.

Memphasys Limited and its Controlled Entities

sheep and pigs. The successful development of this cell separation technology could add significant commercial value to Memphasys' current cell separation and IVF technology.

The project will be led jointly by world renowned fertility expert and co-inventor of the Felix technology, Professor John Aitken, and Dr Robert Nordon. Dr Nordon is the inventor of the Quantum Cell Expansion System, a unique, closed, automated system enabling large scale expansion of cells for clinical therapies, marketed globally by Terumo BCT. Other academics from UNSW Sydney, University of Newcastle and Memphasys personnel will also be part of the joint research team.

Assisted Reproduction Applications for Animals

Whilst the main focus during the period was around developing Felix for the human IVF market, the Company continued to progress other applications of the technology, most notably for use of the technology in assisted reproduction for horses.

Equine

Using the current prototype reusable Felix device, Memphasys has been working with University of Newcastle researchers to improve the yield of high-quality sperm from stallion semen. Whilst there have been pleasing initial results using this equipment, a new device will be required to cope with the much greater volume of horse semen (10 to 100 times greater) than for humans, and the far greater stallion sperm concentration.

It is believed the current device conformation could provide sufficient sperm for Intra Cytoplasmic Sperm Injection ("ICSI") procedures, however this is a niche market for only extremely high value animals. Memphasys wants to offer a device that will be able to prepare sperm for artificial insemination ("AI"), the main way that assisted reproduction is performed in animals. AI requires much greater quantities of viable sperm than the amount required for ICSI.

Memphasys is engaging with micro-fluidic bioreactor design specialists at the UNSW to do real time imaging of sperm fluid flow under an electric field and to model fluid dynamics of current and future cartridge designs in order to improve efficiency of separation and cope with the much greater volume required for artificial insemination applications.

Application to other animals and to other cells

Development of a next generation device for equine sperm separation will be valuable, not just for the equine market but also for its applicability to humans (potentially for the next generation Felix device) and to other animals such as cows, sheep and pigs.

Memphasys believes this will also be a useful model system to apply to other high value cells apart from sperm cells, for example, to immune cells that are used for cell therapy.

Membrane Technology Development

The Company also made great progress on improving consistency and determining how to scale up to commercially produce its proprietary hydrogel membrane. It has now transferred the technology to make these special membranes to W&S who not only fabricate the plastic parts of the cartridge but also assemble all components within the cartridge, then seal, package and label it. W&S are working on further improvements to automate and reduce unit cost of manufacturing the hydrogel membrane. This membrane is unique in its formulation and its method of manufacture and must be produced at high consistency and low unit cost. It is a key and currently the highest cost component of the cartridge and will be needed in large quantities.

Post reporting date activities

Visits to KOLs

On 4 February 2020, Memphasys advised that key executives had visited and conducted demonstrations of the Felix device at six key KOL sites early in January 2020, to assist with the assessment process. The

Memphasys Limited and its Controlled Entities

first six KOL sites were in Iran, India, China, Japan, Canada and the USA, with initial positive feedback received. Commencement of Protocol A Assessments, which each site will follow to compare the performance of Felix with either DGC or Swim Up, are commencing.

New Zealand KOL secured

On 5 February 2020, Memphasys advised that it had signed a KOL MoU with Fertility Plus, a leading established fertility clinic based at the National Women's Hospital in Auckland, New Zealand.

Fertility Plus is part of Auckland District Health Board ("DHB") which has three major facilities: Auckland City Hospital, Starship Children's Hospital and Greenlane Clinical Centre, has close links to the Auckland University Medical School and provides a comprehensive range of fertility investigations and treatments which are both publicly and privately funded.

Board and management

Memphasys appointed Shane Hartwig as a non-executive director in July 2019.

Dr Farnaz Shapouri, a Clinical Applications executive with a PhD and clinical expertise in reproductive medicine, was recruited in September 2019 to oversee the KOL program and provide support to the KOLs.

Financial performance

The net loss for the half-year ended 31 December 2019 was \$747,352 (2018: net loss of \$566,680). The variance was due mainly to costs associated with maintaining a listing of the entity's securities on the ASX and other related costs.

R&D expenses decreased from \$105,825 to \$39,740. This is the portion of R&D expenses related to the Next Generation program, still in 'research phase' and hence not capitalised in accordance with accounting standards. The R&D expenditure related to the projects in 'development phase' and capitalised to Intangible Assets, increased from \$972,651 in the six-month period to 31 December 2018 to \$1,582,662 in the same period to 31 December 2019.

The new accounting standard AASB 16 'Leases', applied by Memphasys from 1 July 2019, increased finance cost expenses by \$33,853, and was partially offset by the Group incurring no interest on interest bearing loans in the six-month period to 31 December 2019.

At 31 December 2019, the Group had net working capital of \$4,170,287 (30 June 2019: \$1,420,952), and a cash balance of \$3,815,988 (30 June 2019: \$873,573).

The financial position of the Group was strengthened as a result of the share placement conducted in the six-month period to 31 December 2019 and the exercise of options in November and December 2019. The strong financial position is expected to allow the Group to fund its operations into initial commercial sales.

The Group received from the Australian Taxation Office a R&D grant of \$1,103,264 during the period (2018: \$592,734).

Overall, the Group had cash inflows from operating activities of \$522,661 for the half-year ended 31 December 2019 (2018: \$120,233) and cash outflows of \$1,744,136 from investing activities (\$1,031,236).

The Group will continue to actively seek funding to continue its R&D program and to progress the commercialisation of the Felix device.

Outlook for 2020

It is an exciting time for Memphasys, with first commercial sales of Felix anticipated before the end of CY 2020, subject to satisfactory completion of the V&V program and the timely receipt of requisite regulatory/ distribution/ importation approvals in initial target markets. Given the importance of the Felix product to pass key commercialisation milestones before it is approved for sale and launch, Memphasys will continue to focus on the key activities required for Felix's successful commercial development.

Memphasys Limited and its Controlled Entities

These activities include:

- Distribution of Felix devices to all KOL sites for assessment and testing in early 2020.
- Receiving positive results from the KOL assessments of the Felix device. KOL sites offer a ready-made reference customer base for accelerating early sales.
- Successfully completing the V&V process which is required before regulatory registration (if required) and commercial sales in the early target markets can commence. V&V anticipated to be completed mid-CY2020.
- Confirming regulatory framework and receiving requisite clearances with those markets in which Memphasys can achieve early commercial sales timeframes.

Whilst focus will remain on the commercial development of Felix, the Company will continue to work on scaling up the technology to apply to horses and other animals, and to develop cell therapy opportunities, especially from other cell separation applications from work undertaken under the ARC Linkage Grant.

Rounding of amounts

In accordance with ASIC Corporations (Rounding in Financial/Directors' Reports) Instrument 2016/191, the amounts in the directors' report and in the financial report have been rounded to the nearest dollar, unless otherwise specified.

AUDITOR'S INDEPENDENCE DECLARATION

A copy of the auditor's independence declaration as required under section 307C of the Corporations Act 2001 in relation to the review for the half-year is set out on page 22 of this report.

This report is signed in accordance with a resolution of the Board of Directors.



Alison Coutts
Executive Chairman

Sydney
21 February 2020

Memphasys Limited and its Controlled Entities

Consolidated Statement of Profit or Loss and Other Comprehensive Income For the half-year ended 31 December 2019

	Half-year 31 December 2019 \$	Half-year 31 December 2018 \$
Continuing operations		
Other Revenue		
Grant income	16,743	46,034
Interest income	15,352	1,117
Marketing expenses	(13,475)	-
General and administration expenses	(692,106)	(479,366)
Research and development expenses	(39,740)	(105,825)
Finance cost expenses	(34,126)	(28,640)
Profit (loss) before income tax	(747,352)	(566,680)
Income tax expense	-	-
Profit (loss) after tax from continuing operations	(747,352)	(566,680)
Net profit (loss) for the year attributable to members of parent	(747,352)	(566,680)
Other comprehensive profit (loss)	-	-
Total other comprehensive profit (loss) for the period	-	-
Total comprehensive profit (loss) for the period	(747,352)	(566,680)
Earnings per share (EPS)	Dollar/share	Dollar/share
- Basic loss per share	(0.0012)	(0.0016)
- Diluted loss per share	(0.0011)	(0.0016)

The above consolidated statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes.

Memphasys Limited and its Controlled Entities

Consolidated Statement of Financial Position As at 31 December 2019

	Note	As at 31 December 2019 \$	As at 30 June 2019 \$
CURRENT ASSETS			
Cash and cash equivalents		3,815,988	873,573
Inventory		3,745	-
Other current assets		840,309	1,280,035
TOTAL CURRENT ASSETS		4,660,042	2,153,608
NON-CURRENT ASSETS			
Property, plant and equipment	5	157,800	27,514
Right-of-use asset	8	1,056,747	-
Intangible assets	6	5,579,344	4,655,316
TOTAL NON-CURRENT ASSETS		6,793,891	4,682,830
TOTAL ASSETS		11,453,933	6,836,438
CURRENT LIABILITIES			
Trade and other payables		237,444	308,618
Non-interest-bearing liabilities	7	26,334	319,372
Lease liabilities	8	101,984	3,768
Tax liabilities		6,639	7,436
Short-term provisions		117,354	93,462
TOTAL CURRENT LIABILITIES		489,755	732,656
NON-CURRENT LIABILITIES			
Lease liabilities	8	983,962	2,975
Long-term provisions		34,819	29,366
TOTAL NON-CURRENT LIABILITIES		1,018,781	32,341
TOTAL LIABILITIES		1,508,536	764,997
NET ASSETS		9,945,397	6,071,441
EQUITY			
Issued capital	9	48,697,744	43,424,091
Reserves		542,117	1,451,272
Accumulated losses		(39,294,464)	(38,803,922)
TOTAL EQUITY		9,945,397	6,071,441

The above consolidated statement of financial position should be read in conjunction with the accompanying notes.

Memphasys Limited and its Controlled Entities

Consolidated Statement of Changes in Equity For the half-year ended 31 December 2019

	Note	Issued capital \$	Share options reserve \$	Accumulated losses \$	Total equity \$
Balance at 1 July 2019		43,424,091	1,451,272	(38,803,922)	6,071,441
Loss for the period		-	-	(747,352)	(747,352)
Total comprehensive loss for the period		-	-	(747,352)	(747,352)
Transactions with owners recorded directly in equity:					
Issue of share capital		4,836,944	-	-	4,836,944
Transaction costs on share issue		(346,291)	-	-	(346,291)
Issue of share options		-	130,655	-	130,655
Transfer expired share options to Issued Capital		783,000	(783,000)	-	-
Transfer expired share options to Accumulated Losses		-	(256,810)	256,810	-
Balance 31 December 2019	9	48,697,744	542,117	(39,294,464)	9,945,397
	Note	Issued capital \$	Share options reserve \$	Accumulated losses \$	Total equity \$
Balance at 1 July 2018		40,095,314	1,015,610	(37,759,344)	3,351,580
Loss for the period		-	-	(566,680)	(566,680)
Total comprehensive loss for the period		-	-	(566,680)	(566,680)
Transactions with owners recorded directly in equity:					
Issue of share capital		355,000	-	-	355,000
Transaction costs on share issue		(29,843)	-	-	(29,843)
Issue of share options		-	24,200	-	24,200
Balance 31 December 2018	9	40,420,471	1,039,810	(38,326,024)	3,134,257

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes.

Memphasys Limited and its Controlled Entities

Consolidated Statement of Cash Flows For the half-year ended 31 December 2019

	Half-year 31 December 2019 \$	Half-year 31 December 2018 \$
Cash flows from operating activities		
Payments to suppliers and employees	(580,603)	(468,065)
Net proceeds from government grants	1,103,264	592,734
Finance costs paid	-	(4,436)
Net cash flows provided by operating activities	522,661	120,233
Cash flows from investing activities		
Interest received	10,689	621
Purchase of property, plant and equipment	(148,129)	(13,702)
Development expenditure	(1,606,696)	(1,018,155)
Net cash flows used in investing activities	(1,744,136)	(1,031,236)
Cash flows from financing activities		
Proceeds from issue of shares	4,543,905	355,000
Share issue costs	(333,878)	(29,843)
Proceeds from related party borrowings	-	709,000
Repayment of borrowings to related parties	-	(109,000)
Proceeds from third party borrowings	-	50,000
Repayment of borrowings to third parties	-	(50,000)
Repayment of lease liabilities	(46,137)	-
Net cash flows provided by financing activities	4,163,890	925,157
Net increase in cash and cash equivalents	2,942,415	14,154
Cash and cash equivalents at beginning of period	873,573	201,807
Cash and cash equivalents at end of the half-year	3,815,988	215,961

The above consolidated statement of cash flows should be read in conjunction with the accompanying notes.

Memphasys Limited and its Controlled Entities
Notes to the Consolidated Financial Statements
For the half-year ended 31 December 2019

Notes to the consolidated interim financial statements

1. Reporting entity

Memphasys Limited (the "Company") is a company domiciled in Australia. The address of the Company's registered office is 30 Richmond Road, Homebush, NSW 2140, Australia. These consolidated interim financial statements as at and for the six months ended 31 December 2019 comprise the Company and its subsidiaries (together referred to as the "Group" or "Consolidated entity").

The Group is a for-profit entity and is primarily involved in the development of cell and protein separation devices, and associated consumables, for use in Healthcare, Veterinary and Biotechnology market sectors.

The consolidated annual financial statements of the Group as at and for the year ended 30 June 2019 are available at www.memphasys.com.

2. Basis of preparation

a) Statement of compliance

The half-year consolidated financial statements are a general-purpose financial report prepared in accordance with the requirements of the *Corporations Act 2001* and Australian Accounting Standard AASB 134 'Interim Financial Reporting'.

This interim financial report is intended to provide users with an update on the latest annual financial statements of Memphasys Limited and its controlled entities as at and for the half year ended 31 December 2019. As such, it does not contain information that represents relatively insignificant changes occurring during the half-year within the Group. It is therefore recommended that this financial report be read in conjunction with the annual financial statements of the Group for the year ended 30 June 2019, together with any public announcements made during the half-year period.

The same accounting policies and methods of computation have been followed in this interim report as were applied in the most recent annual financial statements except for the new accounting policy for leases described in Note 3.

These consolidated interim financial statements were authorised for issue by the Board of Directors on 20 February 2020.

b) Going Concern

The financial statements have been prepared on the going concern basis, which contemplates continuity of normal business activities and the realisation of assets and discharge of liabilities in the normal course of business.

Whilst focus is on the commercial development of Felix for human IVF, Memphasys will continue to work on scaling up the technology to apply to horses and other animals, and to develop cell therapy opportunities, especially from other cell separation applications from work undertaken under the ARC Linkage Grant. To complete the commercialisation of the animal artificial insemination and IVF applications, Memphasys will require additional funding.

The directors note further the following in relation to the financial affairs of the consolidated entity:

- The consolidated entity made a net loss of \$747,352 for the half year ended 31 December 2019.
- For the half year ended 31 December 2019 the consolidated entity had net cash outflows from combined operating activities and investing activities of \$1,221,475.
- At 31 December 2019 the consolidated entity had net working capital of \$4,170,287 and a cash balance of \$3,815,988.

Memphasys Limited and its Controlled Entities
Notes to the Consolidated Financial Statements
For the half-year ended 31 December 2019

- At 31 December 2019 the consolidated entity had net assets of \$9,945,397.

The Directors believe that the Group will continue as a going concern, and accordingly have prepared the financial statements on a going concern basis after considering the following:

- The Company expects to receive in September 2020 a tax refund of approximately \$1,450,000 from the Australian Tax Office for eligible research and development activities carried out in the financial year ending 30 June 2020 under the research and development tax credit scheme.
- The line of credit of \$200,000 provided by Alison Coutts, announced in July 2017, is still current and available to be drawn for the full amount, if required.

No adjustments have been made to the financial report relating to the recoverability and classification of the carrying amounts of assets and classification of liabilities that might be necessary should the Group not continue as a going concern.

c) Principles of consolidation

The consolidated financial statements incorporate the financial statements of the company and entities controlled by the company (its subsidiaries) (referred to as 'the Group' in these financial statements). Control is achieved when the company is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the company controls an investee if and only if the company has all the following:

- Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- Exposure, or rights, to variable returns from its involvement with the investee; and
- The ability to use its power over the investee to affect its returns.

The company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above. A list of controlled entities is contained in Note 24 to the financial statements for the year ended 30 June 2019. All controlled entities have a June financial year-end.

As at reporting date, the assets and liabilities of all controlled entities have been incorporated into the consolidated financial statements as well as their results for the half-year then ended. Where controlled entities have entered or left the consolidated group during the half-year, their operating results have been included/excluded from the date control was obtained or until the date control ceased.

All inter-company balances and transactions between entities in the consolidated group, including any unrealised profits or losses, have been eliminated on consolidation. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with those policies applied by the parent entity.

d) Foreign currency transactions

At each end of the reporting period:

- Foreign currency monetary items shall be translated using the closing rate;
- Non-monetary items that are measured in terms of historical cost in a foreign currency shall be translated using the exchange rate at the date of the translation; and
- Non-monetary items that are measured at fair value in a foreign currency shall be translated using the exchange rates at the date when the fair value was measured.

Memphasys Limited and its Controlled Entities
Notes to the Consolidated Financial Statements
For the half-year ended 31 December 2019

e) Judgement and estimates

In preparing these interim financial statements, management make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expense. Actual results may differ from these estimates.

The significant judgements made by management in applying the Group's accounting policies and the key sources of estimation uncertainty were the same as those that applied to the consolidated financial statements as at and for the year ended 30 June 2019.

g) Rounding of Amounts

The parent entity has applied the relief available to it under ASIC Corporations (Rounding in Financial / Director's Reports) Instrument 2016/191. Accordingly, amounts in the financial statements and directors' report have been rounded off where appropriate to the nearest \$1, unless otherwise specified.

3. Significant accounting policies

The accounting policies applied in the interim financial statements are the same as those applied in the Group's consolidated financial statements as at and for the year ended 30 June 2018, except for the policy stated below.

AASB 16 Leases

The consolidated entity has adopted AASB 16 from 1 July 2019. The standard replaces AASB 117 'Leases' and for lessees eliminates the classifications of operating leases and finance leases. Except for short-term leases and leases of low-value assets, right-of-use assets and corresponding lease liabilities are recognised in the statement of financial position. Straight-line operating lease expense recognition is replaced with a depreciation charge for the right-of-use assets (included in operating costs) and an interest expense on the recognised lease liabilities (included in finance costs). In the earlier periods of the lease, the expenses associated with the lease under AASB 16 will be higher when compared to lease expenses under AASB 117. However, EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) results improve as the operating expense is now replaced by interest expense and depreciation in profit or loss. For classification within the statement of cash flows, the interest portion is disclosed in operating activities and the principal portion of the lease payments are separately disclosed in financing activities.

The impact on the financial performance and position of the consolidated entity from the adoption of AASB 16 is detailed in Note 4.

Right-of-use assets

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease. Right-of-use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The consolidated entity has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Memphasys Limited and its Controlled Entities
Notes to the Consolidated Financial Statements
For the half-year ended 31 December 2019

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the consolidated entity's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of-use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

4. Impact of adoption of AASB 16 'Leases'

The Group has adopted AASB 16 'Leases' from 1 July 2019, using the modified retrospective approach. As a result, comparatives for the statement of financial position as at 30 June 2019 have not been restated. The impact on the statement of financial position was as follows:

- Right-of-use asset of \$1,127,198 was recognised, using discounted based on the weighted average incremental borrowing rate of 7% and net of accumulated depreciation.
- Finance lease liability of \$1,127,198 (current \$93,241 and non-current \$1,033,956) was recognised.

5. Non-Current Assets - Property, Plant & Equipment

	Property, Plant and Equipment	Total
	\$	\$
Carrying amount at 1 July 2019	27,514	27,514
Additions	148,129	148,129
Depreciation	(17,843)	(17,843)
Carrying amount at 31 December 2019	157,800	157,800

6. Non-Current Assets – Intangible Assets

	31 December 2019	30 June 2019
	\$	\$
Carrying amount at the beginning of the period	4,655,316	3,333,180
Internally developed expenditure	1,582,662	2,341,664
ATO Tax Incentive - deferred income for the period	(658,634)	(1,019,528)
Carrying amount at the end of the period	5,579,344	4,655,316

7. Non-interest-bearing Liabilities

		31 December 2019	30 June 2019
		\$	\$
Current	Note		
Loans from third parties – unsecured		26,334	26,334
Loans from related parties – unsecured	10.b	-	293,038
Total current interest-bearing liabilities		26,334	319,372
Total non-interest-bearing liabilities		26,334	319,372

Memphasys Limited and its Controlled Entities
Notes to the Consolidated Financial Statements
For the half-year ended 31 December 2019

Analysis of current debt

31 December 2019	Currency	Year of maturity	Carrying value \$
Third party loan unsecured – Ms Chang Sew Ying Alison	AUD	At call	26,334
Total current debt at 31 December 2019			<u><u>26,334</u></u>

30 June 2019	Currency	Year of maturity	Carrying value \$
Third party loan unsecured – Ms Chang Sew Ying Alison	AUD	At call	26,334
Related party loan unsecured – Andrew Goodall	AUD	2019	293,038
Total current debt at 30 June 2019			<u><u>319,372</u></u>

Balance of short-term loans for a total amount of \$1,185,339 borrowed from Andrew Goodall between December 2018 and March 2019 was converted to equity for \$892,301 in March 2019 and the balance in November 2019.

8. Right-of-Use Asset and Lease liability

The following is a reconciliation of non-cancellable operating lease commitments disclosed as at 30 June 2019 to the aggregate carrying amount of lease liabilities recognised at the date of the initial application on 1 July 2019:

Aggregate non-cancellable operating lease commitments at 30 June 2019	302,443
Plus: lease payments included in the measurement of lease liabilities and not previously included in non-cancellable operating lease commitments	1,120,151
Less: lease payments previously included in non-cancellable lease commitments for leases with remaining terms of less than 12 months and leases of low value assets	-
Less: impact of discounting lease payments to their present value at 1 July 2019	(295,397)
Carrying amount of lease liabilities recognised at 1 July 2019	<u><u>1,127,197</u></u>

At 31 December 2019 the Group had the following lease arrangements:

- lease for its production and commercial properties in Australia. This is a non-cancellable lease and has a remaining non-cancellable lease term of 17 months. In December 2018 the Group signed with the lessor a deed of variation to the lease agreement adding an option to renew the lease for a further two (2) terms of three (3) years each, being the first term from 1 June 2021 expiring 31 May 2024, and the second term from 1 June 2024 expiring 31 May 2027.
- lease for purchase of telephone equipment. The remaining lease term is 14 months.

Memphasys Limited and its Controlled Entities
Notes to the Consolidated Financial Statements
For the half-year ended 31 December 2019

	31 December 2019	30 June 2019
	\$	\$
Lease assets		
Carrying amount of lease assets, by class of underlying asset:		
<i>Building under lease agreements</i>		
At cost	1,127,197	-
Accumulated depreciation	(70,450)	-
	1,056,747	-
<i>Equipment under lease agreements</i>		
At cost	21,300	21,300
Accumulated depreciation	(15,975)	(15,975)
	5,325	7,455
Total carrying amount of lease assets	1,062,072	7,455
Lease liabilities		
Current lease liabilities	101,984	3,768
Non-current lease liabilities	983,962	2,975
Total carrying amount of lease assets	1,085,946	6,743

9. Share capital

a) Share capital

	December 2019 Shares	June 2019 Shares	December 2019 \$	June 2019 \$
Ordinary Shares – fully paid	753,973,880	550,133,718	48,697,744	43,424,091

b) Movements in ordinary share capital of the company during the half-year were as follows:

	Dec 2019 Shares	Jun 2019 Shares	Dec 2019 \$	Jun 2019 \$
Balance at beginning of half-year	550,133,718	340,588,613	43,424,091	40,095,314
Share issue under share placement	182,608,696	23,333,333	4,200,000	350,000
Share issue in lieu of consulting fees	-	4,000,000	-	80,000
Share issue under non-renounceable entitlement offer	-	117,430,058	-	2,348,591
Share issue on conversion of loans	-	64,615,047	-	1,292,301
Exercise of options	21,231,496	166,667	636,944	5,000
Transfer of expired options reserves	-	-	783,000	-
	753,973,880	550,133,718	49,044,035	44,171,206
Less issue costs			(346,291)	(747,115)
Balance at end of half-year	753,973,880	550,133,718	48,697,744	43,424,091

Memphasys Limited and its Controlled Entities
Notes to the Consolidated Financial Statements
For the half-year ended 31 December 2019

10. Related Party Transactions

a) Transactions with key management personnel

Key management personnel received total compensation of \$334,502 for the six months ended 31 December 2019 (six months ended 31 December 2018: \$215,263). The difference between periods mainly relates to the following components:

- the recruitment of the Operations Manager, Nick Gorrington, in April 2019, \$65,674, and
- the issue of performance options to Alison Coutts \$50,693, Nick Gorrington \$3,168 and Pablo Neyertz \$1,267. These amounts reflect the proportion of time since the time they were issued up to 31 December 2019.

Options to key management personnel

The terms and conditions of each grant of options over ordinary shares affecting remuneration of key management personnel in the six-month period ended 31 December 2019 or future reporting years are as follows:

Name	Number of options granted	Grant date	Expiry date	Exercise price	Fair value per option at grant date
Alison Coutts	18,000,000	22/10/2019	22/10/2021	\$0.1142	\$0.02535
Nick Gorrington	1,200,000	22/10/2019	22/10/2021	\$0.1142	\$0.02535
Pablo Neyertz	400,000	22/10/2019	22/10/2021	\$0.1142	\$0.02535

Options do not vest until the following milestones are reached.

All options were granted over unissued fully paid ordinary shares in the company. The number of options that will vest is determined having regard to the satisfaction of performance measures (and weightings) as follows:

- Tranche 1: MEM has satisfied all legal and regulatory requirements (as applicable) to distribute its Felix device by 30 June 2020 in its first market jurisdiction.
- Tranche 2: MEM has satisfied all legal and regulatory requirements (as applicable) to distribute its Felix device by 30 September 2020 in its second market jurisdiction.
- Tranche 3: The sale of Felix to at least 50% (in number) of the Key Opinion Leaders in any one of the Company's initial two market jurisdictions by 31 December 2020.

Note: Tranche 3 could be achieved without tranche 2 being achieved, but tranche 2 can only be achieved after tranche 1 has been successfully achieved.

Value of options over ordinary shares granted, exercised and lapsed for key management personnel as part of compensation during the six-month period ended 31 December 2019 is set out below:

Name	Value of options granted during the period \$	Value of options exercised during the period \$	Value of options lapsed during the period \$	Remuneration consisting of options for the period %
Alison Coutts	50,593	-	-	25.35
Nick Gorrington	3,168	-	-	4.82
Pablo Neyertz	1,267	-	-	1.84

b) Other related party transactions

At 31 December 2019 the consolidated entity had no interest-bearing liabilities payable to related parties (30 June 2019: \$293,038 as disclosed in Note 7).

Options to directors

The terms and conditions of each grant of options over ordinary shares affecting remuneration of directors in the six-month period ended 31 December 2019 or future reporting years are as follows:

Memphasys Limited and its Controlled Entities
Notes to the Consolidated Financial Statements
For the half-year ended 31 December 2019

Name	Number of options granted	Grant date	Expiry date	Exercise price	Fair value per option at grant date
Andrew Goodall (a)	989,681	22/10/2019	22/10/2021	\$0.1142	\$0.02535
Andrew Goodall (b)	1,099,646	22/10/2019	22/10/2021	\$0.1142	\$0.02535
Marjan Mikel (b)	1,099,646	22/10/2019	22/10/2021	\$0.1142	\$0.02535
Shane Hartwig (b)	1,099,646	22/10/2019	22/10/2021	\$0.1142	\$0.02535

(a) Options granted as part consideration for the provision of working capital loans to the Company.

(b) Options granted in exchange for forgoing 50% of director fees for 12 months of \$25,000.

1/12 of the options shall vest each month for the first 12 months following their issue, subject to the holder remaining a director of the Company at the relevant vesting date.

All options were granted over unissued fully paid ordinary shares in the company.

Value of options over ordinary shares granted, exercised and lapsed for directors during the six-month period ended 31 December 2019 is set out below:

Name	Value of options granted during the period \$	Value of options exercised during the period \$	Value of options lapsed during the period \$	Remuneration consisting of options for the period %
Andrew Goodall	4,645	-	-	40.08
Marjan Mikel	4,645	-	-	40.08
Shane Hartwig	4,645	-	-	45.54

11. Fair Value

The carrying amounts of cash and cash equivalents, other current assets, trade and other payables and current borrowings are assumed to approximate their fair values due to their short-term nature.

12. Events Subsequent to Reporting Date

No events occurred subsequent to 31 December 2019.

Directors' Declaration

In the opinion of the directors of Memphasys Limited ("the Company"):

1. The consolidated financial statements and notes, as set out on pages 9 to 20 are in accordance with the Corporations Act 2001, including:
 - a) giving a true and fair view of the consolidated entity's financial position as at 31 December 2019 and of its performance for the half-year ended on that date; and
 - b) complying with Australian Accounting Standard *AASB 134 Interim Financial Reporting* and the *Corporations Regulations 2001*.
2. There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of the Board of Directors.



Alison Coutts
Executive Chairman

Sydney
21 February 2020

Level 16, Tower 2 Darling Park
201 Sussex Street
Sydney NSW 2000

Postal Address
GPO Box 1615
Sydney NSW 2001

p. +61 2 9221 2099
e. sydneypartners@pitcher.com.au

MEMPHASYS LIMITED AND CONTROLLED ENTITIES

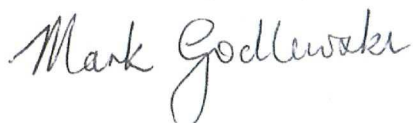
AUDITOR'S INDEPENDENCE DECLARATION TO THE DIRECTORS OF MEMPHASYS LIMITED

In relation to the independent auditor's review for the half-year ended 31 December 2019, to the best of my knowledge and belief there have been:

- (i) No contraventions of the auditor independence requirements of the *Corporations Act 2001*; and
- (ii) No contraventions of any applicable code of professional conduct.

This declaration is in respect of Memphasys Limited and the entities it controlled during the period.

PITCHER PARTNERS



MARK GODLEWSKI
Partner

21 February 2020



Level 16, Tower 2 Darling Park
201 Sussex Street
Sydney NSW 2000

Postal Address
GPO Box 1615
Sydney NSW 2001

p. +61 2 9221 2099
e. sydneypartners@pitcher.com.au

MEMPHASYS LIMITED AND CONTROLLED ENTITIES

INDEPENDENT AUDITOR'S REVIEW REPORT TO THE MEMBERS OF MEMPHASYS LIMITED

REPORT ON THE HALF-YEAR FINANCIAL REPORT

We have reviewed the accompanying half-year financial report of Memphasys Limited ("the company") and its Controlled Entities ("the consolidated entity"), which comprises the consolidated statement of financial position as at 31 December 2019, the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the half-year ended on that date, a statement of significant accounting policies, other selected explanatory notes and the directors' declaration of the consolidated entity comprising Memphasys Limited and the entities it controlled at the half-year's end or from time to time during the half-year.

Directors' Responsibility for the Half-Year Financial Report

The directors of the company are responsible for the preparation of the half-year financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the half-year financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express a conclusion on the half-year financial report based on our review. We conducted our review in accordance with Auditing Standard on Review Engagements ASRE 2410: *"Review of a Financial Report Performed by the Independent Auditor of the Entity"*, in order to state whether, on the basis of the procedures described, we have become aware of any matter that makes us believe that the half-year financial report is not in accordance with the *Corporation Act 2001* including: giving a true and fair view of the consolidated entity's financial position as at 31 December 2019 and its performance for the half-year ended on that date; and complying with Accounting Standard AASB 134: *"Interim Financial Reporting"* and the *Corporations Regulations 2001*. As the auditor of Memphasys Limited, ASRE 2410 requires that we comply with the ethical requirements relevant to the audit of the annual financial report.

A review of the half-year financial report consists of making enquiries, primarily of persons responsible for the financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Independence

In conducting our review, we have complied with the independence requirements of the *Corporations Act 2001*.

Conclusion

Based on our review, which is not an audit, we have not become aware of any matter that makes us believe that the half-year financial report of Memphasys Limited is not in accordance with the *Corporations Act 2001* including:

- (a) giving a true and fair view of the consolidated entity's financial position as at 31 December 2019 and of its performance for the half-year ended on that date; and
- (b) complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*.



MARK GODLEWSKI

Partner

24 February 2020



PITCHER PARTNERS

Sydney

Corporate Directory

Memphasys Limited **ABN 33 120 047 556**

Directors

Alison Coutts	Executive Chairman
Andrew Goodall	Non-Executive Director
Marjan Mikel	Non-Executive Director
Shane Hartwig	Non-Executive Director

Company Secretary

Andrew Metcalfe
Accosec Pty Ltd
Suite 3, Level 2
470 Collins Street
Melbourne, VIC 3000

Share Registry

Boardroom Limited
Level 7, 207 Kent Street
Sydney, NSW 2000

Registered Office

30 Richmond Road
Homebush, NSW 2140
Australia

Tel: 61 2 8415 7300
Fax: 61 2 8415 7399
Email: info@memphasys.com
Website: www.memphasys.com

Solicitors

Steinepreis Paganin Lawyers and Consultants
Level 4, The Read Buildings
16 Milligan Street
Perth, WA 6000

Auditors

Pitcher Partners Sydney
Level 16, Tower 2, 201 Sussex Street
Sydney, NSW 2000