



ASX Release

Chairman's Report for Memphasys' Annual General Meeting, December 5 2017

Sydney, Tuesday 5 December 2017

Dear Shareholders,

On behalf of the Directors of Memphasys, I would like to warmly welcome you to our Annual General Meeting. My name is Alison Coutts and I am Executive Chairman of Memphasys.

I would like to introduce our two non-executive directors: Andrew Goodall, who is also a substantial shareholder, and John Pereira, who is attending the meeting by telephone.

I would also like to introduce our company secretary, Andrew Metcalfe and our auditor, Mark Godlewski from Pitcher Partners.

It is an exciting time for Memphasys as we accelerate the development and commercialisation of our unique, patented IP product to address male factor infertility, the Felix device.

I would now like to provide a brief update on the Company's activities over the past twelve months and the outlook for the company going forward.

The Felix program

Over the past year, MEM has made great advances in developing its core technology which underpins MEM's lead program, the Felix device for separation of the most viable sperm for IVF procedures. We successfully developed a proprietary bio-compatible membrane and a new, simplified flow configuration for the device's cartridge which processes the semen samples. Such changes were mandatory; the previous membrane material and re-circulating buffer fluid flow in the former research-grade device needed to be changed to obtain regulatory approval for marketing.

With the input of our manufacturing partner, Hydrix, we made five initial prototype re-usable cartridges for further research purposes which contain the new membrane material and revised flow parameters.

We demonstrated with our research partner, the University of Newcastle under the guidance of Prof John Aitken, that the cartridges successfully separate the most viable sperm from a semen sample from healthy human males in around 5 minutes.

In comparison, current sperm selection processes such as Density Gradient Centrifuge (used for IVF and IUI) and Swim Up (used for ICSI) are slow laborious laboratory processes that can take up to 40 minutes to complete.

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Recently we have been performing optimisation studies with the University of Newcastle researchers to determine best operating conditions in preparation for developing the next generation device. The next device will have single-use disposable cartridges and will be designed for use for human IVF clinical treatments.

Over the coming months, we will be designing and starting to build this next device for *in-vitro* assessment by around 15 leading IVF centres globally. We expect it will take about 12 months to complete the build of the next device 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 Key Opinion Leaders located in these centres.

These Key Opinion Leaders are expected to write publications; reports of the testing by the Key Opinion Leaders which are expected to favourably coincide with the market launch of the Felix product.

Our advice is that the regulatory approval process will not require *in-vivo* testing but will require proof that the Felix device does not cause any more damage, based on well - established sperm -quality measures, than the current laboratory-based sperm preparation procedures.

The Felix device also has application to the animal ART¹ field. We previously determined that a prior research-grade device could separate viable equine sperm but that yield needed to increase for artificial insemination procedures. University of Newcastle researchers are presently testing fresh equine semen processing using one of the new re-usable cartridges.

MEM has also maintained its collaboration with Minitube GmbH (“Minitube”), the largest provider of animal ART products globally. With Minitube we have established that our technology is able to select viable sperm from fresh bovine semen.

Memphasys is also continuing its applied research into other high value bio-separations and has maintained its strong links with the Department of Chemical and Biomolecular Engineering at the University of Melbourne in anticipation of furthering commercialisation work on new membranes combined with electrophoresis.

Operations

Over the past year, Memphasys has been emerging from the remnants of past legacy issues which are now all resolved. The Company has resolved all former litigation issues. It also sold its gels business to a private Shanghai-based company and is now solely focussed on developing high value bio-separation applications, the first of which is the Felix device for human IVF.

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

The Company received an R&D tax refund of \$431,528 in October. Over the past year, directors were primarily responsible for providing funds to the Company. They have been assisted by Platinum Road, through the issue of two Bond Agreements, and, most recently by Patersons Securities, through the

¹ Assisted Reproduction Technology

issue of convertible notes, for consideration by shareholders at this AGM, and a concomitant rights issue and placement, to be considered at the EGM to be held on 21 December 2017.

If all requisite approvals are passed by shareholders, this fund raising will provide around \$1,500,000 of fresh funds and separately the conversion of various director and other debts which will strengthen the Company's balance sheet at a time when it is focused on the development of its first commercial product.

Conclusion

In conclusion, the board wishes to thank shareholders for your continued support and investment, especially over the past year which presented numerous challenges.

Fortunately, I would like to assure shareholders that these challenges are now behind us and we are free to focus on properly funded value-adding activities.

We are buoyed by the prospects in front of us, especially for commercialising the Felix device for human IVF in the near term and I look forward to updating shareholders on this over the course of 2018.

For further information please contact:

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About Memphasys:

Memphasys Limited (**ASX: MEM**) specialises in biological separations for high value commercial applications. The Company's patented membrane processes in combination with electrophoresis, the application of an electrical potential difference across a fluid, enable the separation of high value substances or contaminants from the fluid in which they are contained.

The main application of the technology is the separation of the most viable sperm cells for artificial reproduction, most particularly for human IVF.