



ACN 010 126 708

ASX Release  
10<sup>th</sup> July 2017

## RHS update

### Highlights

- RHS introduces new product PG-Seq™ at ESHRE in Geneva
- Repromed and RHS co-development project
- Opportunity for increased EmbryoCollect® sales following Illumina product decision
- RHS continues quarterly revenue growth trend

**Adelaide, 10 July 2017:** RHS Limited (ASX: RHS) (“RHS” or “the Company”) is pleased to announce that the Company introduced a new product named PG-Seq™ at the European Society for Human Reproduction and Embryology (ESHRE) meeting held in Geneva this week. PG-Seq™ is a complete Pre-implantation Genetic Screening (PGS) solution using Next Generation Sequencing (NGS) that includes RHS’ DOPlify™ whole genome amplification, NGS library preparation reagents and software for data analysis. RHS is releasing validation data obtained from 197 samples using an Illumina MiSeq sequencing platform confirming accuracy for the detection of aneuploidy. PG-Seq™ enables high-throughput PGS analysis of twice as many samples as the Illumina PGS product VeriSeq (48 compared to 24) and can be combined with RHS’ Target Sequence Enrichment for PGS and single gene disorder detection (Pre-implantation Genetic Diagnosis or PGD).

The Company’s co-development project with Repromed (part of the Monash IVF Group) on non-invasive PGS was announced at the RHS AGM on the 26<sup>th</sup> May 2017, in Company presentations by the Chairman and CEO. This non-invasive approach to embryo screening has the potential to improve IVF outcomes by making PGS more accessible for patients. A media release between Repromed and RHS in late June provided details on the co-development project, which can be found attached and also via the RHS website by the following link: <http://www.rhsc.com.au/news>. It is anticipated that an update on the co-development project and trial will occur around the time of the annual meeting of the American Society for Reproductive Medicine (ASRM) to be held in San Antonio in late October 2017.

Illumina have announced that they will no longer supply their microarray products 24Sure and 24Sure Plus from 2018. This has increased interest in RHS’ EmbryoCollect® as users of the Illumina microarray products search for a replacement.

Sales of products and services by RHS for the June quarter were consistent with forecast quarter on quarter growth, with a modest increase in quarterly cash receipts from customers totalling over \$65,000. The Company had approximately \$2M cash at the end of June and will provide a further business update with the usual financial information accompanying the Appendix 4C later this month.

#### For further information please contact:

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## About RHS

RHS is a developer of advanced single cell genomic technologies focussed on improving health and research outcomes, with over 10 years of technical experience in the field. RHS recently released DOPlify™, a product that is a platform technology for whole genome amplification (WGA) of single or small numbers of cells. DOPlify™ is applicable to the global Next Generation Sequencing (NGS) market. EmbryoCollect® is the Company's lead IVF specific product and is designed to increase the chance of a successful IVF cycle by selecting the most viable embryos for transfer by screening for aneuploidy. This is known as Preimplantation Genetic Screening (PGS).

### **RHS Ltd.**

ACN 010 126 708  
ASX: RHS

### **Issued Capital**

89.9 million shares  
7.05 million options

### **Registered Office**

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### **Directors**

Dr David Brookes (Chairman)  
Sue MacLeman  
Johnathon Matthews  
Dr Michelle Fraser (CEO)

### **Finance Officer**

**& Company Secretary**  
Raymond Ridge

Media Release  
22 June 2017

## Monash IVF Group and RHS team up to revolutionise IVF

### Highlights

- Following performance validation, Repromed are using DOPlify™ for non-invasive PGS in a clinical trial
- Potential revolutionary change to the IVF industry

RHS Limited (ASX: RHS) (“RHS”) and Monash IVF Group (“MVF”) are partnering to develop an accurate way to test for chromosome number in embryos without biopsy. Preimplantation Genetic Screening or PGS is usually performed on a small number of cells taken from the developing embryo. The embryo releases DNA from their chromosomes into the culture media that the embryo is growing in, so rather than biopsying the embryo, the approach uses this free DNA in the culture media. The companies are now conducting a prospective pilot clinical trial of non-invasive Preimplantation Genetic Screening (PGS) using this embryo culture media. RHS Managing Director Dr Michelle Fraser said, “Success in the clinical trial has the potential to change global practice”.

The culture media that IVF embryos are grown in is typically disposed of, but through protocols developed by Repromed, part of MVF, in conjunction with the Robinson Research Institute the quality and quantity of DNA has been shown to be a viable template for PGS without the need for embryo biopsy. PGS is used to identify embryos with the correct number of chromosomes, avoiding the transfer of non-viable embryos with the incorrect number of chromosomes. Embryos with the incorrect number of chromosomes typically lead to failed IVF transfers. By finding embryos with the correct number of chromosomes and selecting them for transfer, PGS can make IVF more efficient and therefore more successful.

Repromed have been developing their method for how and when to collect the culture media over the past 18 months under the leadership of Professor Michelle Lane, and chose to work with RHS on the final protocol due to “the performance of RHS product DOPlify™, its ease of use, the ready protocol automation as well as the opportunity to work locally”. DOPlify™ accurately copies small amounts of DNA so they can be analysed for genetic changes, such as additional or missing whole chromosomes in PGS.

The small clinical trial being conducted by Repromed Adelaide, follows joint validation between RHS and Repromed comparing spent (used) culture media to results from matched embryo biopsy samples. Patient recruitment has already been finalised and the end point of the trial is a comparison of pregnancy rates between non-invasive PGS and standard embryo biopsy-based PGS. Results will be available later in the year.

Dr Fraser said “By shifting away from embryo biopsy to using the spent culture media, PGS becomes non-invasive and the embryo that is transferred remains intact. The clinical trial is expected to show a positive impact on IVF success rates.

This is a great example of two South Australian globally competitive companies combining expertise to make a revolutionary change to the IVF industry.”

**For further information please contact:**

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## **About Monash IVF Group/Repromed**

Repromed is part of the Monash IVF Group and has one of the most active and successful Reproductive Medicine research and development programs in South Australia. Our scientists and doctors have made major contributions to global knowledge about the causes of and treatments for infertility, ensuring that our pregnancy success rates are world class.

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