

***Memphasys Successfully trials RoXsta™ Mega Cell High-Throughput***

**Key Highlights**

- **RoXsta™ Mega Cell High-Throughput Assay** has been developed to facilitate rapid, high-capacity testing of reactive oxygen species (ROS) levels in biological fluids
- **Pilot study of RoXsta™ Mega Cell High-Throughput Assay** has successfully demonstrated the potential to perform mass testing of antioxidant levels in biological samples in humans and animals
- The **RoXsta™ Mega Cell High-Throughput Assay** has been used in various studies, including the Company's recent assessment of oxidative stress in cattle and a study of antioxidant levels in professional footballers. In the study of footballers, the technology demonstrated the capacity to process 96 samples in less than an hour, delivering highly accurate data in a fraction of the time compared to traditional methods
- The **Mega Cell High-Throughput Assay device** expands the commercial opportunities for the **RoXsta™** technology with potential application for large-scale commercial and research-led laboratories

**Memphasys Limited (ASX: MEM)**, a biotechnology company focused on developing and commercialising innovative products for assisted reproduction and disease diagnosis/prevention, is pleased to announce a number of successful trials of a RoXsta™ Mega Cell diagnostic device, capable of conducting large-scale simultaneous antioxidant assays in a laboratory setting.

During recent trials, the RoXsta™ Mega Cell High-Throughput Assay device was capable of simultaneously processing 96 samples in less than an hour, returning highly accurate antioxidant readings to discern which individuals should receive antioxidant therapy and the level of optimal treatment.

Memphasys envisions the RoXsta™ Mega Cell High-Throughput Assay device, which has been developed in partnership with leading product design and development consultancy Design + Industry Pty Ltd (D+I), has the potential to replace existing laboratory practices due to its speed and accuracy. Currently, commercially available methods are estimated to take up to 16 hours to deliver a single result. However, the upscaled RoXsta™ Mega Cell High-Throughput Assay device can generate results in just 3 minutes.

The RoXsta™ Mega Cell High-Throughput Assay device has been assessed in a number of oxidative stress measurement trials, including the Company's recent assessment of blood samples from heifers<sup>1</sup> and also provided analysis of oxidative stress in relation to male infertility and the impact of intense exercise on the antioxidant status of professional footballers.

Pilot trials of the system demonstrated clear commercial benefits for the upscaled unit. For example, the study of footballers would traditionally require the use of multiple assay kits which are priced at ~A\$300

<sup>1</sup> Refer to ASX Announcement dated: 3 April 2025

each and can only assay 41 samples in duplicate. By contrast, the RoXsta™ Mega Cell High-Throughput Assay device was able to assist in the analysis of many more samples in a shorter time and at a fraction of the cost.

**Commenting on the expanding commercial applications of the RoXsta™ System, Memphasys Managing Director and CEO Dr David Ali said:**

*“We are thrilled that RoXsta™ can be so readily scaled, with the Mega Cell High-Throughput Assay device representing a further commercial opportunity for the Company. To date, much of the focus has been on smaller-scale assessments of RoXsta™, ensuring the results are accurate and the device is capable of being deployed in a commercial setting.*

*The success of these pilot studies suggest Memphasys can move into the next development phase, identifying significant opportunities and optimising antioxidant testing for both commercial and research-led laboratories.”*

**Authorised by the Board of Memphasys Limited.**

**Ends**

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### **About Memphasys Limited**

Memphasys Limited (ASX: MEM) specialises in advanced reproductive biotechnology, developing medical devices, diagnostics, and proprietary media for human and animal applications. With flagship technologies like the Felix™ and RoXsta™ Systems, Memphasys is committed to delivering transformative solutions that enhance fertility outcomes worldwide.

Website: [www.memphasys.com](http://www.memphasys.com)