

Memphasys' RoXsta™ System Secures Provisional Patent Approval and Publishes First Paper in Major International Journal

Key Highlights:

- **The International Search Report on Memphasys' innovative RoXsta™ antioxidant system confirms all claims in its patent application are novel and inventive.**
- **A paper detailing the technical development of the RoXsta™ System has been accepted for publication in a leading international peer-reviewed journal.**
- **Studies are ongoing in the thoroughbred horse racing industry to investigate how physical exertion and oxidative stress affect reproductive health.**

Australian biotechnology company Memphasys Limited (ASX: MEM) (“Memphasys” or “the Company”) is pleased to announce major developments for its RoXsta™ System, a next-generation analytical platform designed to measure oxidative stress in biological samples swiftly and effectively.

The RoXsta™ System operates by assessing the antioxidant activity in various substances, addressing a critical need across numerous fields. Elevated oxidative stress is linked to cellular damage and has been associated with multiple conditions, including infertility, degenerative diseases, and impaired physical performance. An effective antioxidant system like RoXsta™ offers a valuable tool for diagnosing and monitoring such conditions by detecting imbalances between free radicals and antioxidants.

Memphasys is excited to report that the International Search Report for the patent application of RoXsta™ has confirmed that all claims are both novel and inventive. This provisional patent publication is scheduled for June 2025, securing Memphasys' position in the growing field of oxidative stress diagnostics.

Additionally, a research paper documenting RoXsta™'s technical development has been accepted by *Antioxidants*, a well-respected international journal. What sets RoXsta™ apart from other antioxidant systems is its versatility and its ability to deliver results in approximately five minutes, making it a powerful diagnostic tool for rapid, point-of-care assessments.

Further studies on the system's capabilities are underway, with additional papers under review. These explore RoXsta™'s wide applicability across diverse materials such as plant extracts, cosmetics, blood, urine, saliva, and semen.

Memphasys is actively collaborating with industry stakeholders to refine RoXsta™ for commercial use in targeted fields, where the system's capacity for rapid, reliable antioxidant measurement has the potential to make a meaningful impact.

In the Thoroughbred horse racing industry, studies are ongoing to investigate how physical exertion and oxidative stress affect reproductive health, with preliminary findings currently under analysis.

In human health, Memphasys has uncovered a strong correlation between oxidative stress measurements captured by RoXsta™ and sperm functionality, highlighting the system's potential for diagnosing male infertility – a condition affecting one in ten men of reproductive age.

Looking forward, Memphasys is also exploring RoXsta™'s potential in fields such as cattle breeding, food technology, and sports science, where oxidative stress measurements are crucial for health, performance, and productivity.

In collaboration with our research team, Memphasys is finalising arrangements to carry out a scoping analysis at minimal cost to determine threshold levels of oxidative stress in cattle over the coming weeks. If promising results are obtained, this scoping exercise will provide a framework for designing a larger scale clinical trial, planned for the Autumn joining in 2025. If the preliminary data are supportive, Memphasys will initiate and manage this trial in conjunction with University of Newcastle (UoN).

Laureate Professor John Aitken, Memphasys' Scientific Director, commented, "RoXsta represents a significant advancement in how we can detect and manage oxidative stress across both human and animal health. Its speed and versatility provide valuable, real-time insights into oxidative imbalances, with promising implications for areas such as infertility treatment and performance monitoring. We believe RoXsta has the potential to make a meaningful impact on early diagnosis and intervention across various fields."

This announcement has been approved for release by the Board of Memphasys Limited.

ENDS

For further information, please contact:

Dr David Ali
Managing Director & CEO
Memphasys Limited
Tel: +61 2 8415 7300
E: david.ali@memphasys.com

David Tasker
Managing Director
Chapter One Advisors
Tel: +61 433 112 936
E: dtasker@chapteroneadvisors.com.au

About Memphasys

Memphasys Limited (ASX: MEM) specialises in reproductive biotechnology for high value commercial applications. Reproductive biotechnology products in development include medical devices, in vitro diagnostics, and new proprietary media. The Company's patented bio separation technology, utilised by the Company's most advanced product, the Felix™ System, combines electrophoresis with proprietary size exclusion membranes to separate the most viable sperm cells for human artificial reproduction.

Website: www.memphasys.com

The RoXsta™ System is a registered trademark of Memphasys Limited. All rights reserved.