

Memphasys files patent for novel antioxidant assay system, RoXsta™

Australian bio-separation biotechnology company Memphasys Limited (ASX: MEM) is pleased to announce the filing of a patent for its innovative antioxidant assay system, RoXsta™, a significant advancement in oxidative stress measurement. This system offers the potential to revolutionise how oxidative stress is assessed, providing a faster, more accessible solution across a variety of applications.

While RoXsta™ is not yet a fully integrated point-of-care device, Memphasys has successfully developed a prototype that has shown positive results in key opinion leader (KOL) studies. The system currently occurs in a lab and requires a technician. However, with distinct time advantages—delivering results in just six minutes—RoXsta™ represents a potential major improvement over existing testing methods.

The company has filed a patent for the principle by which a fully point-of-care device might be generated. Moving forward, Memphasys is proactively engaging with industry to secure the investment needed to develop a commercial integrated, easy-to-use point-of-care device. This next step will position RoXsta™ as a potential game-changer for the assessment of oxidative stress in real time and on-site.

Why Oxidative Stress Matters

Oxidative stress occurs when there is an imbalance between harmful reactive oxygen species (ROS) and the body's antioxidant defences. This imbalance can lead to a wide range of health issues, from aging and disease to impaired fertility in humans and animals. Detecting and managing oxidative stress is therefore crucial for advancing diagnostics, especially in fertility assessment, chronic disease management, and even food quality control.

Currently, oxidative stress testing requires complex and time-consuming laboratory analyses. RoXsta™ is set to change this landscape by offering a rapid, accurate, and easy-to-use solution that can assess antioxidant activity in various fluids, such as blood, urine, saliva, semen, and even food extracts.

Proactive Industry Engagement and Future Studies

Memphasys has built the first phase of a functional prototype of the RoXsta™ system, which is currently undergoing field testing. The company is also moving into an industry-backed study to establish baselines and thresholds for oxidative stress levels, which are likely to be associated with meaningful events in reproductive performance. These proactive measures demonstrate Memphasys' commitment to providing industry-leading solutions backed by science and collaboration.

By filing the patent and publishing data that supports the validity of these underlying concepts, Memphasys is paving the way for further industry engagement and investment to turn RoXsta™ into a fully developed, commercially viable point-of-care device. The company remains focused on advancing the system and anticipates strong interest from healthcare professionals, researchers, and industries that rely on rapid oxidative stress assessments.

The RoXsta™ Advantage

The potential versatility of the RoXsta™ system allows it to measure antioxidant activity in various media, providing results in just six minutes. This allows healthcare professionals, fertility specialists, and researchers to make faster, better-informed decisions in real time, without the need for samples to be sent to a laboratory.

As part of the next phase, Memphasys will begin publishing a series of papers detailing the technical aspects and validation of RoXsta™ across multiple diagnostic applications, ranging from assessing processed fruit quality to diagnosing male infertility. The first of these papers will be submitted this week to the international peer-reviewed journal *Antioxidants*.



Memphasys continues to take positive steps in advancing the understanding and management of oxidative stress, benefiting a wide range of industries from healthcare to food quality control.

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

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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

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