

STRATEGIC EQUINE FERTILITY STUDY TO SUPPORT GLOBAL COMMERCIALISATION OF FELIX™ DEVICE

HIGHLIGHTS

- **Memphasys commits to a three-year equine fertility study, positioning Felix™ as a leading technology for equine sperm selection. Commercial outcomes expected within 12 months.**
- **The trial will be conducted in conjunction with the University of Newcastle and EquiBreedUK Ltd.**
- **Memphasys to collaborate with two of Australia's leading Thoroughbred stud farms – Arrowfield Stud and Vinery Stud Pty Ltd.**
- **The global Equine Artificial Insemination (AI) market, is estimated to be valued at USD 681.1 million in 2023, and projected to grow at a CAGR of 5.7% from 2024 to 2032.¹**
- **Memphasys anticipates Felix™ will be ready for use and global distribution in non-thoroughbred Equine applications within 12 months, targeting over 4,000 horse breeders.**
- **The equine fertility study will also explore oxidative stress measurement in both thoroughbred and non-thoroughbred horses, expanding RoXsta's™ market application into the animal sector.**
- **Memphasys is actively seeking a global distributor, with leads generated through its collaboration with the University of Newcastle.**
- **If successful equine fertility study results will support direct sales of Felix™ in the non-thoroughbred market without the need for major device modification.**
- **With an annual cost of \$30,000 (partially offset by R&D tax credits), equine fertility study is expected to leverage over \$1 million in research value.**

Australian reproductive biotechnology company Memphasys Limited (ASX: MEM) is pleased to announce its commitment to a transformative equine fertility study that will significantly advance the global commercialisation of the Felix™ device, positioning it as the leading technology for equine sperm selection.

STUDY OVERVIEW AND STRATEGIC IMPACT

Memphasys has committed to a three-year equine fertility study, with an annual investment of \$30,000. This study will be partially offset by R&D tax credits, making it a cost-effective yet strategic investment in the Company's future. In collaboration with the University of Newcastle and EquiBreedUK Ltd a leading international UK based Equine stud the study is designed to establish Felix™ as the preferred technology for equine sperm selection, with the goal of enabling its rapid commercialisation post-publication of study results.

The study will focus on:

1. **Sperm Isolation and Oxidative Stress Testing:** The Felix™ device will be evaluated for its effectiveness in isolating high-quality sperm. Oxidative Stress measurement the animal counterpart of RoXsta will also be tested. We speculate that this system will be

¹ Global Market Insights Inc., Equine Artificial Insemination Market Share
<https://www.gminsights.com/industry-analysis/equine-artificial-insemination-market>

of high value in such vital areas as monitoring the progress of equine pregnancy, the management of stallion fertility and evaluating the impact of stressors such as transportation, heat or vigorous exercise on the health and wellbeing of the studs' precious livestock. Both high quality sperm isolation and oxidative stress testing are critical factors in equine fertility. This study approach mirrors the advanced technologies to be applied in the forthcoming bovine studies and ensure that the data generated will be robust and widely applicable.

2. **Market Readiness:** By confirming the efficacy of Felix™ in this study, Memphasys will be poised to enter the global equine market with a product that requires no modifications for sale, targeting over 4,000 horse breeders worldwide. The study is expected to produce publishable results within 12 months, which will serve as a strong foundation for marketing and sales efforts.
3. **Support for Bovine Applications:** The insights gained from this equine study will also reinforce Memphasys' ongoing bovine research, creating synergies that could accelerate the Company's entry into broader animal fertility markets.

MARKET OPPORTUNITY AND COMMERCIALISATION PATHWAY

The global Equine Artificial Insemination (AI) market was valued at USD 681.1 million in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 5.7% from 2024 to 2032.² The U.S. market alone accounted for USD 243.7 million in 2023, with expectations of continued growth driven by increasing demand for genetically superior horses in sports and breeding programs.

Key aspects of the market include:

1. **Equine AI and IVF Market Dynamics:** Approximately 3-4 million foals are born annually through AI, with a significant portion resulting from in vitro fertilisation (IVF) techniques like Intracytoplasmic Sperm Injection (ICSI). ICSI, while effective, is costly and labour-intensive, highlighting the need for more efficient sperm selection methods like those offered by Felix™.
2. **Global Reach and Scalability:** There are an estimated 3,950 equine semen collection and processing facilities worldwide, representing a substantial market for Felix™. The study will validate the use of Felix™ in these settings, paving the way for its adoption on a global scale.

STRATEGIC PARTNERSHIPS AND FUTURE DEVELOPMENTS

Memphasys is actively seeking a global distributor to partner in the commercialisation of Felix™. The Company's collaboration with the University of Newcastle has already generated leads, and the results of the upcoming study are expected to further attract interest from potential distributors.

1. **Sperm Isolation and Oxidative Stress Testing:** While Felix™ is not currently intended for use in thoroughbred breeding due to regulatory restrictions, it can be used in the non-thoroughbred Equine market. In addition, oxidative stress measurement capabilities offer's a valuable tool that can be applied across both thoroughbred and non-thoroughbred markets. This functionality is expected to enhance the value proposition of sperm separation and oxidative stress measurement in the equine ART market.
2. **Immediate Sales Opportunities:** Pending study results, Memphasys anticipates launching Felix™ for commercial sale to non-thoroughbred breeders within the next 12 months. The study's publication in major conferences and scientific journals will serve

² Global Market Insights Inc., Equine Artificial Insemination Market Share
<https://www.gminsights.com/industry-analysis/equine-artificial-insemination-market>



as critical validation of Felix™, enabling direct sales without the need for lengthy periods of end user trial periods.

INVESTMENT AND FINANCIAL IMPACT

The total investment in this study is expected to be under \$90,000 over three years. In return, Memphasys anticipates leveraging over \$1 million worth of research value, significantly enhancing the Company's IP portfolio and positioning Felix™ for rapid market entry at a fraction of the cost of a dedicated clinical trial.

Memphasys is confident that this strategic investment in the equine fertility study will accelerate the commercialisation of Felix™ and strengthen the Company's position as a leader in reproductive biotechnology.

With the support of key partners and a clear pathway to market, Memphasys is poised for significant growth in the animal fertility sector.

Dr David Ali CEO of Memphasys said "Strategies such as this are value focused and driving the clinical utility and application of these devices into new areas of new opportunity to bring ROI to our investor base"

Further updates will be provided as the study progresses and as Memphasys finalises its commercialisation strategy.

For more information, please contact:

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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