



ASX ANNOUNCEMENT

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VitroGro® World-First: Culture of Human Embryonic Stem Cells for Therapeutic Use

Breakthrough research at QUT has found that **Tissue Therapies Limited's (ASX: TIS)** VitroGro® technology can be used to replace animal or human serum in the culture of human embryonic stem cells, the Company announced today.

Tissue Therapies CEO Dr Steven Mercer said the VitroGro® breakthrough was a world-first and a significant milestone in the race to use human embryonic stem cells for medical treatments.

He said the application of the VitroGro® technology to stem cell sciences potentially removed one of the most significant obstacles to approved use of stem cell therapies.

"Traditional culture of human embryonic stem cells requires the presence of animal- or human-derived serum in the growth media for the embryonic stem cells to survive and grow," he said.

"Health regulators such as the American Food and Drug Administration (FDA) and Australian Therapeutic Goods Administration (TGA) have always held serious concerns about the possible transmission of infections to humans treated with stem cells grown in the presence of serum.

"Until now, there have been no practical alternatives to serum for the growth of human embryonic stem cells and this has been a major impediment to the approval of stem cell therapies for human treatment.

"The QUT research has proven that the presence of Tissue Therapies' VitroGro® allows human embryonic stem cells to be grown through more than 20 generations without serum, and the cells still retain characteristics indicating that they have maintained their original potential to form a range of human tissues."

The research was conducted by QUT doctoral candidate Sean Richards, under the leadership of Professor Zee Upton, one of the original inventors of the VitroGro® technology platform.

Prof Upton said the research proved that human embryonic stem cells can be successfully grown and expanded using Tissue Therapies' VitroGro®, thereby eliminating the need for human or animal serum in the cell culture media.

"This is a unique and exciting discovery with huge implications for scientific and medical research and ultimately, therapeutic uses of human embryonic stem cells," she said.

Dr Mercer said the discovery had significant potential to accelerate the practical application of human stem cell therapies to develop cures for a wide range of devastating diseases.

"The eradication of animal or human serum from the stem cell culture process removes one of the most serious and difficult health regulatory objections to the use of stem cell therapies in humans," he said.

"Tissue Therapies is currently in negotiations with a number of large international companies who supply cell culture products or use various types of human stem cells.

"We will be working with them to translate this into practical clinical outcomes for patients, as well as commercial returns for Tissue Therapies shareholders.

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"This research validates and demonstrates the versatility and power of the VitroGro® technology.

"We expect to confirm additional clinical applications of the VitroGro® technology over the next 12 months."

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About Tissue Therapies Limited

Tissue Therapies Limited is an Australian company developing biomedical technologies for wound healing, tissue and various cell culture applications.

The Company has worldwide exclusive rights to commercialise VitroGro®, a platform technology developed by tissue engineering experts at the Institute for Health and Biomedical Innovation at QUT for enhancing cell growth and migration. VitroGro® has particular commercial applications in wound healing, tissue regeneration, stem cell therapies and other cell culture uses.

Based on its VitroGro® platform technology, Tissue Therapies is developing more effective medical treatments for wounds and burns, integration of orthopaedic and medical implants, and other applications such as cosmeceuticals.

Tissue Therapies also provides cell culture reagents to enhance the growth of mammalian cells for emerging cell-based therapies, along with research and industrial cell culture markets internationally.

More information: www.tissuetherapies.com