

First Human Tendons Grown in Laboratory

- World first breakthrough growing whole human tendons in laboratory
- Orthocell collaborated with researchers at University of Western Australia, Curtin University, Griffith University and University of Auckland
- Research sponsored by Orthocell through a Federal ARC Linkage Grant

Perth, Australia; 6 November 2014: Regenerative medicine company Orthocell Limited announced today its success in growing human tendons in a laboratory for the first time.

The findings of experiments to grow functional human tendons in a bioreactor have been presented at the Australian Society of Elbow and Shoulder Surgeons biennial conference in Melbourne this week by Orthocell's Chief Scientific Officer, Professor M.H. Zheng. The scientific breakthrough has resulted from a collaboration between Orthocell, University of Western Australia, Curtin University, Griffith University and University and University of Auckland and was made possible through an Australian Research Council Linkage Grant.

Professor Zheng explained: "The secret to growing a human tendon graft outside the body, is to culture viable tendon cells and create the exact amount of stimulation to these cells, so that they feel at home and produce the necessary components to form tendon tissue. In the future this could represent a product to replace severely damaged tendons, complementing our exiting Ortho-ATI™ tendon repair product."

The data presented by Professor Zheng also demonstrates how the Ortho-ATI™ product works. Professor Zheng said that "we have shown that we can grow and maintain potent and viable tendon cells in culture using the same patented cell growth technology behind Ortho-ATI™. The Ortho-ATI™ technology is not simply relieving pain and improving function, it is facilitating the growth of new tendon tissue and this focused study demonstrates that achievement."

Dr Rocky Tuan, a world leading expert in regenerative medicine and stem cells, visiting from the US, commented on this breakthrough: "The field of regenerative medicine is advancing at a rapid pace. It is exciting to see human tendons grown in the lab that could lead to the regeneration of severely damaged tendons in the future. There is a growing clinical need for effective tendon repair. Orthocell is a leader in this space with their Ortho-ATI™ tendon repair treatment on the market."

Dr Tuan is the Distinguished Professor of Orthopaedic Surgery, Director at the Center for Cellular and Molecular Engineering and Director at the Center for Military Medicine Research, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

Orthocell is the first company globally to gain regulatory approval for its tendon repair and regeneration product Ortho-ATI™, which is licensed in Australia by the Therapeutic Goods Administration. Orthocell continues to develop new applications for the tendon repair technology in various injury sites such as tennis elbow, Achilles and patellar tendons. The ability to grow whole tendons outside the body will augment Orthocell's expanding capability and pipeline in the regenerative medicine area.

The successful Ortho-ATI™ 3-5 year results from Orthocell's tennis elbow clinical trial were also presented at the meeting, demonstrating that Ortho-ATI™ is an effective non-invasive approach to the treatment of damaged and degenerated tendons.

For more information, please contact:

General enquiries

Paul Anderson
Orthocell Limited, Managing Director
P: (08) 9360 2888
E: paulanderson@orthocell.com.au

Investor Relations

Rebecca Wilson
Buchan Consulting
P: 0417 382 391
E: rwilson@buchanwe.com.au

Media enquiries

Gavin Lower
Buchan Consulting
P: (03) 8866 1215 / 0414 796 726
E: glower@buchanwe.com.au

About Orthocell Limited

Orthocell is a commercial-stage, regenerative medicine company focused on developing products for a variety of tendon, cartilage and soft tissue injuries. Orthocell's portfolio of products include TGA-approved stem cell therapies Autologous Tenocyte Implantation (Ortho-ATI™) and Autologous Chondrocyte Implantation (Ortho-ACI™), which aim to regenerate damaged tendon and cartilage tissue. The Company's other major product is Celgro™, a collagen medical device which facilitates tissue repair and healing in a variety of orthopaedic, reconstructive and surgical applications and is being readied for first regulatory approvals.