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MESOBLAST COMMENCES VERTEBRAL DISC CARTILAGE PROGRAM TO TARGET EARLY DISEASE

Aim Is To Build Robust Franchise of Spine Stem Cell Products

Key points:

- Mesoblast commences preclinical trials for repair and regeneration of vertebral disc cartilage
- Expands product line for treating degenerating vertebral discs to include early stage disease; spinal fusion remains therapeutic goal for end-stage disc degeneration
- Minimally invasive approach opens massive market opportunity
- Trial costs offset by Australian Government Grant
- Second cartilage program shows company can leverage achievements to exploit new opportunities for platform technology

Melbourne, Australia; 24 July 2007: Australia's adult stem cell company, Mesoblast Limited (ASX:MSB;USOTC:MBLY), today announced that it has commenced preclinical trials of its patented adult stem cell technology for repair and regeneration of vertebral disc cartilage.

The trials signal the expansion of Mesoblast's line of products in development for the treatment of vertebral disc disease to include those for disc cartilage regeneration, in addition to bone regeneration and spinal fusion.

Low back pain is present in 15-25% of the general population, and affects 70-90% of people at some stage in their lifetime. Among the most common causes of back pain is a degenerating intervertebral disc, which will cause abnormal transmission of forces onto the remaining disc, facet joints, and other stabilising structures, and may ultimately result in nerve root impingement.

While spinal fusion remains the therapeutic goal for end-stage disc degeneration, a less invasive approach is needed to address the needs of the much larger population with early-stage disc disease.

To address this massive potential market opportunity, Mesoblast is developing an allogeneic, or universal donor, adult stem cell product which can be injected by a minimally invasive approach into degenerating discs of unrelated recipients in order to repair and regenerate disc cartilage, increase disc space height, and improve the biomechanics of the native disc.

The trials of this new approach using Mesoblast's stem cells to treat disc degeneration are being undertaken at the Institute of Medical and Veterinary Sciences, University of Adelaide, and led by Associate Professor Robert J Moore, Head of The Adelaide Centre for Spinal Research.

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The outcome of this approach will be evaluated after six months, and the results of these trials are expected to form the basis for a Phase 2 clinical trial Investigational New Drug (IND) submission to the US Food and Drug Administration (FDA).

Mesoblast Founder, Professor Silviu Itescu, said that the company's patented stem cells have already been shown to generate cartilage, and to be effective when used in multiple unrelated (or allogeneic) recipients in various other target diseases.

"This is the second major cartilage program which we have been able to advance with the support of the Australian Government's Commercial Ready Grant awarded to Mesoblast.

"We are now in a position to leverage off our clinical and technical achievements in order to show that our off-the-shelf allogeneic stem cell product can be used in the treatment of various major cartilage diseases of unmet clinical need," Professor Itescu said.

In addition to this new program, Mesoblast expects to provide a market update shortly on the results of its first cartilage program, conducted at Murdoch University, which is aimed at developing an adult stem cell product for cartilage repair and regeneration in the treatment of patients with osteoarthritis of large joints such as the knee.

About Mesoblast Limited

Mesoblast Limited (ACN 109 431 870) is an Australian biotechnology company committed to commercialisation of novel treatments for orthopaedic conditions, including a unique adult stem cell technology aimed at the regeneration and repair of bone and cartilage. Mesoblast has worldwide exclusive rights to a series of patents and technologies that have been developed over more than 10 years relating to the identification, extraction and culture of adult Mesenchymal Precursor Cells (MPCs). The company has also acquired a significant interest in Angioblast Systems Inc, an American company developing the platform MPC technology for the treatment of cardiovascular diseases, including repair and regeneration of blood vessels and heart muscle. Mesoblast's strategy is to maximise shareholder value through both corporate partnerships and rapid product commercialisation.

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