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MESOBLAST MOVES FORWARD WITH NEXT PHASE OF CLINICAL TRIALS USING "OFF-THE-SHELF" STEM CELLS

New trials support unique commercial model

Key points:

- Commencement of spinal fusion clinical trial at leading United States orthopaedic centre
- Trial uses Mesoblast's "off-the-shelf", or allogeneic, adult stem cells for spinal fusion
- Allogeneic trials represent next clinical stage for company, supporting key business model
- Patient enrolment concluded in Australian Pilot Trial of patients' own, or autologous, stem cells
- Strong interim analyses from this trial form a key factor behind Mesoblast's move forward with allogeneic phase of clinical development

Melbourne, Australia; 16 July 2007: Australian adult stem cell company, Mesoblast Limited (ASX:MSB; USOTC:MBLTY), announced today the commencement of its first United States-based clinical trial using allogeneic, "off-the-shelf" or universal donor, adult stem cells for patients with intervertebral disc disease and requiring spinal fusion.

Mesoblast Founder, Professor Silviu Itescu, said: "We have been delighted by the strong interim results from the Pilot Trial at The Royal Melbourne Hospital for fracture repair using patients' own, or autologous, stem cells. All 10 patients have now safely received stem cell implantation.

"The results from the Pilot Trial have now enabled Mesoblast to progress to the next phase of clinical development, using allogeneic (universal donor) cells.

"We are excited to be commencing the allogeneic clinical program, which underpins Mesoblast's business model and will provide regenerative treatments to the broadest number of patients possible," Professor Itescu said.

The spinal fusion trial using allogeneic cells will be undertaken at the Hospital for Special Surgery (HSS) in New York, a world leading institution in orthopaedic treatments. The trial's Principal Investigator is Joseph M. Lane, M.D., Chief of the Metabolic Bone Disease Service and Attending Orthopaedic Surgeon, Hospital for Special Surgery. He is also Medical Director of the Osteoporosis Prevention Center and Associate Director of the Trauma Service. Dr. Lane is acknowledged as a world leader in the field of bone repair and regeneration.

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Over 300,000 spinal fusion procedures are currently performed annually in the US alone, representing a rapidly growing, multi billion dollar market. Mesoblast aims to commercialise a safe and effective "off-the-shelf" stem cell therapy to significantly improve fusion outcomes. This will eliminate the need for autograft, bone obtained from a patient's own hip through a second surgical procedure which can result in long-term complications such as chronic pain and infection.

Mesoblast's commercial strategy is to produce a high margin, unique adult stem cell product that is obtained from a single donor, commercially expanded and frozen, and subsequently used in thousands of unrelated, or allogeneic, recipients at the time and place of need.

Mesoblast intends to shortly provide a market update on the progress of the autologous cardiovascular Pilot Trial at the John Hunter Hospital in Newcastle, as well as the allogeneic cardiac program of its US-based sister company Angioblast Systems Inc.

About Hospital for Special Surgery

Founded in 1863, Hospital for Special Surgery (HSS) is located in New York City and is a world leader in orthopaedics, rheumatology, and rehabilitation (www.hss.edu). HSS is ranked second nationally in orthopaedics by U.S. News & World Report. In 2004, HSS was recognised by Queen Elizabeth and the British Government for its landmark role in guiding the development of an innovative orthopaedic centre in London and helping the British National Health Service (NHS) initiative to incorporate best practices and improve health care in the UK. HSS is a member of the New York-Presbyterian Healthcare System, and all medical staff are on the faculty of Weill Cornell Medical College. The hospital's research division is internationally recognised as a leader in the investigation of musculoskeletal and autoimmune diseases.

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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