mesoblast
the adult stem cell company

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SPINAL FUSION CLINICAL PROGRAM UPDATE
Accelerated Timetable to Registration Trial

- Phase 2 clinical trial activities in spinal fusion set to expand to major additional clinical centres in United States
- Highly experienced US-based executive appointed to lead clinical program
- Clear, very large market opportunity identified for company's spinal fusion product
- Sufficiently funded and on track to achieve timely milestone of Phase 3 registration trial

Melbourne, Australia; 9 April 2008: Australia's adult stem cell company, Mesoblast Limited (ASX: MSB; USOTC: MBLTY), today announced that it will accelerate its clinical trial timetable towards commencement of a Phase 3 trial in spinal fusion by mid 2009 following encouraging preliminary safety data from its ongoing Phase 2 clinical trial.

Accelerated Clinical Trial Program
The Company is pleased that in the current, single-centre Phase 2 trial for spinal fusion using its' allogeneic (or "off the shelf") proprietary adult mesenchymal precursor cells (MPCs), no cell-related adverse events have been reported in up to five months of follow-up. In this trial safety outcomes are compared between patients randomised to receive either implantation into the spine of autograft alone (patient's' own bone transplanted from the pelvis) or Mesoblast's allogeneic MPCs.

Mesoblast will now expand its Phase 2 Spinal Fusion clinical trial activities to include up to 10 new major clinical trial sites in the United States. This will serve to accelerate the company's US Food and Drug Administration (FDA) submission process for an intervertebral spinal fusion product.

To lead this multi-centre clinical effort, Mesoblast has appointed Dr James Ryaby as Vice President of Research and Clinical Affairs. Dr Ryaby, who is based in the US, has extensive expertise in clinical development of orthopaedic and bone regenerative technologies, including successful execution of large, multi-centre Phase 3 clinical trials for publicly-listed US companies.

"Mesoblast possesses cutting-edge regenerative medical technology. I am delighted to have the opportunity of leading Mesoblast's clinical programs towards achieving commercial product registration," Dr Ryaby said.

Large target market
The number of spinal fusion procedures in the United States alone is expected to exceed 500,000 annually by 2010. Today, the bone regenerative biologic drug component of a single spinal fusion procedure receives reimbursement of approximately US$5,000. An even greater amount is reimbursed for the hardware (rods, screws, cages etc.) used for each procedure.

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Mesoblast is targeting the existing biologic drug market by seeking to obtain US FDA approval for a stem cell product that will be implanted by a minimally invasive technique together with existing hardware to achieve intervertebral body spinal fusion.

Funding and commercial opportunities
Mesoblast is sufficiently funded and well on track to meet all milestones necessary to submit an application to the FDA to begin a Phase 3 registration trial for intervertebral body spinal fusion.

As part of its core business development plan, Mesoblast will engage in commercial discussions with key potential strategic partners during this time period**.**

About Mesoblast

Mesoblast Limited (ASX:MSB; USOTC:MBLTY) is committed to the development of novel treatments for orthopaedic conditions, including the rapid commercialisation of a unique adult stem cell technology aimed at the regeneration and repair of bone and cartilage. Our focus is to progress through clinical trials and international regulatory processes necessary to commercialise the technology in as short a timeframe as possible. Mesoblast has the worldwide exclusive rights for a series of patents and technologies that have been developed over more than 10 years and which relate to the identification, extraction and culture of adult Mesenchymal Precursor Cells (MPCs). The Company has also acquired 39% of 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 and Angioblast are jointly funding and progressing the core technology. Mesoblast's strategy is to maximise shareholder value through both corporate partnerships and the rapid and successful completion of clinical milestones.

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