mesoblast
the adult stem cell company

asx announcement

MESOBLAST'S CELLS SHOW LONG-LASTING AND SUSTAINED EFFECT IN KNEE OSTEOARTHRITIS

Company to commence Phase 2 clinical trial for knee cartilage protection

Key points:

- Single injection of proprietary allogeneic, or "off-the-shelf", adult stem cells into osteoarthritic knees provided sustained protection against cartilage destruction and degeneration for up to nine months
- Preclinical results show that Mesoblast has unique product to target major market opportunity in osteoarthritis
- Milestones hit on time and within budget
- Sufficient funds in place for Phase 2 clinical trial
- Results presented to BioMedical Asia 2008 conference in Singapore

Melbourne, Australia; 17 April 2008: Australia's adult stem cell company, Mesoblast Limited (ASX: MSB; USOTC: MBLTY), today announced successful long-term results in its osteoarthritis preclinical trials. A single injection of its proprietary allogeneic, or "off-the-shelf", adult stem cells into arthritic knees provided sustained protection against cartilage destruction and degeneration for up to nine months.

On the basis of these results, Mesoblast will proceed to commence its Phase 2 clinical trial program for cartilage protection in patients with osteoarthritis of the knee.

The company's exciting results were highlighted yesterday in Singapore at Asia's leading biotechnology conference, BioMedical Asia 2008, where Mesoblast's founder, Professor Silviu Itescu, presented at a gathering of more than 1,000 high-level biomedical industry executives across the industry from Asia, the United States, Europe and Australasia.

Mesoblast's allogeneic cells were safe and effective over a wide range of doses tested at 3, 6 and 12 months in 60 sheep with knee osteoarthritis. The dose which showed maximal effectiveness and superiority over hyaluronic acid alone in protecting cartilage at 3 months continued to show superiority for between 6 and 12 months. In addition, a 10-fold lower dose of cells showed significant and superior effectiveness against cartilage loss for at least 9 months when administered into the damaged knee in the absence of joint inflammation.

"These results are outstanding and indicate that Mesoblast's cells may provide long-term sustained protection against knee cartilage damage in osteoarthritis, in contrast to alternative therapies which are currently on the market and approved by the United States Food and Drug Administration (FDA)," said Professor Peter Ghosh, Mesoblast's Vice President for Cartilage Regenerative Programs and a world-renowned cartilage expert.

asx announcement

Osteoarthritis is the most common musculoskeletal disorder and the leading cause of joint pain and disability among the elderly. It is a degenerative disease which is characterised by the loss of cartilage. More than 15 million people in the US alone suffer from osteoarthritis of the knee. Current therapies attempt to alleviate painful symptoms but are unable to preserve the cartilage lining the joint. Moreover, many of the currently used pharmaceutical therapies are associated with severe side effects and can even cause death. Joint replacement is often the only option for restoring function.

"The commercial opportunity for us in this area is enormous, and if the clinical results continue to parallel the results we have obtained to date, we will have a unique product for long-term knee cartilage protection and regeneration in osteoarthritis," Professor Itescu said.

"We are sufficiently funded to commence clinical testing of our therapy in patients with osteoarthritis of the knee, and will file an FDA Investigational New Drug (IND) submission over the next several months to move forward rapidly with a Phase 2 clinical trial," he said.

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.

For further information, please contact:

Julie Meldrum
Corporate Communications Director
Mesoblast Limited
T: + 61 (03) 9639 6036
M: +61 (0) 419 228 128
E: julie.meldrum@mesoblast.com
W: www.mesoblast.com