

Creative Medical Technology Holdings Develops Platform Aimed at Augmenting All Mesenchymal Stem Cell Therapies for Lower Back Pain

Company files Patent to Increase Circulation around Stem Cell Implantation Sites to Improve Effects of Cellular Therapies

PHOENIX, June 7, 2017 /PRNewswire/ -- Creative Medical Technology Holdings, Inc. (OTCQB:CELZ) announced filing of a patent application covering synergy between intradiscal stem cell injection subsequent to stimulation of perispinal angiogenesis. This patent expands on the Company's issued US Patent #9,598,673, which covers treatment of lower back pain by injection of stem cells into muscles surrounding the lower back to stimulate new blood vessel formation (angiogenesis).

Lower back pain is the single leading cause of disability worldwide, affecting mobility, functionality and the emotional state¹. To date, treatment options have ranged from prescription medication, to physical therapy and even acupuncture. Unfortunately, in patients whose lower back pain originates from disc degeneration, existing approved treatments do not address the underlying cause, but only symptoms.

Recent U.S. clinical trials using stem cells administered directly into the disc have shown promise in regenerating injured discs, and by this means reducing pain in some patients. Companies such as Mesoblast Limited and BioRestorative Therapeutics have patient follow ups as long as three years post injection and show some degree of pain reduction and disc regeneration without adverse effects^{2,3}.

It is known that a significant number of patients suffering from lower back pain have deficient circulation in the areas surrounding the discs⁴, which is believed by some to be the initial cause of disc degeneration. The technology developed and patented by Creative Medical Technology Holdings utilizes biologicals to stimulate a process termed angiogenesis, which overcomes the deficient circulation causing disc degeneration.

"The technology we developed and filed patents on acts to increase circulation around the disc, this alters the environment into which stem cells are injected, thus increasing the likelihood of success of the stem cell therapy injected into the disc." Said Timothy Warbington, President and CEO of Creative Medical Technology Holdings. "We are eager to partner with companies developing intra-disc stem cell therapeutics, which we believe will synergize with our new technology."

"Nutrition of the avascular intervertebral disc occurs by diffusion through the vertebral endplates from the blood vessels in the vertebral bodies above and below the disc^{5,6}. In many patients with lower back pain, cholesterol plaques in the wall of the aorta obliterate orifices of lumbar and middle sacral arteries and decrease blood supply of the lumbar spine and its surrounding structures. As a result, structures with precarious nutrient supply, such as the intervertebral discs, gradually degenerate. It is the aim of the Company's new technology to modify the environment in the disc, so as to give the injected stem cells optimal conditions for regeneration." Said Thomas Ichim, Ph.D, Chief Scientific Officer of the Company.

About Us

Creative Medical Technology Holdings, Inc. is a clinical-stage biotechnology company with three patented focus areas: 1) personalized stem cell procedures for sexual dysfunction and infertility; 2) universal, off-the-shelf amniotic fluid-based stem cells that possess superior healing potential without negative medical or ethical issues; and 3) treatment of disc degenerative disease using mesenchymal stem cells. Through our own research and collaborations with leading academic institutions, we have developed proprietary protocols, built an extensive intellectual property portfolio, developed complete treatment offerings for erectile dysfunction and are performing ground-breaking research with our amniotic fluid-based stem cell.

For additional information visit www.CREATIVEMEDICALTECHNOLOGY.com

Forward-Looking Statements

This release may contain "forward-looking statements." Forward-looking statements are identified by certain words or phrases such as "may", "aim", "will likely result", "believe", "expect", "anticipate", "estimate", "intend", "plan", "contemplate", "seek to", "future", "objective", "goal", "project", "should", "will pursue" and similar expressions or variations of such expressions. These forward-looking statements reflect the Company's current expectations about its future plans and performance. These forward-looking statements rely on a number of assumptions and estimates which could be inaccurate and which are subject to risks and uncertainties. Actual results could vary materially from those anticipated or expressed in any forward-looking statement made by the Company. Please refer to the Company's most recent Forms 10-Q and 10-K and subsequent filings with the SEC for a further discussion of these risks and uncertainties. The Company disclaims any obligation or intent to update the forward- looking statements in order to reflect events or circumstances after the date of this release.

¹ <http://www.webmd.com/back-pain/news/20140325/low-back-pain-leading-cause-of-disability-worldwide-study>

² [http://phx.corporate-ir.net/external.file?](http://phx.corporate-ir.net/external.file?t=2&item=o8hHt16027g9XhJTr8+weNRYaV9bFc2rMd0Q/AXw4zsnF09eSr/vB4cG+2mylzlMnYkbVQ02O/MJ8J1c/WLM7zQJm/DC7xZdE8ydRepMg86BF05USxNkLbVtq7CEUjPEBnp8vqkxMu5)

³ Elabd et al. Intra-discal injection of autologous, hypoxic cultured bone marrow-derived mesenchymal stem cells in five patients with chronic lower back pain: a long-term safety and feasibility study. *J Transl Med*. 2016 Sep 1;14:253.

⁴ Kauppila. Atherosclerosis and disc degeneration/low-back pain--a systematic review. *Eur J Vasc Endovasc Surg*. 2009 Jun;37(6):661-70. [http://www.ejves.com/article/S1078-5884\(09\)00090-2/fulltext](http://www.ejves.com/article/S1078-5884(09)00090-2/fulltext)

⁵ Urban et al. *Nutrition of the intervertebral disc*. Spine, 2004. **29**(23): p. 2700-9.

⁶ Walker et al. *Molecular basis of intervertebral disc degeneration*. Spine J, 2004. **4**(6 Suppl): p. 1585-1665.

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