

## **Creative Medical Technology Holdings Files Patent on Anti-aging Technology Using AmnioStem Stem Cells**

PHOENIX, May 8, 2018 /PRNewswire/ -- Creative Medical Technology Holdings announced today filing of patent application number 62663912 covering the use of its AmnioStem™ stem cells as a means of reducing/reversing natural aging.

Previous studies by the Company have demonstrated that AmnioStem™ cells secrete factors that are capable of rejuvenating aged cells. By encapsulating the cells outside of the body, so that the cells are in contact with the patient's circulation, the cells are permitted to secrete factors that may reduce aging, without having to inject the cells in the patient.

The concept of using cells that are growing outside of the body as a means of modifying physiological activities has previously been performed and appears feasible. Specifically, similar approaches to mixing patient blood with cells outside of the body have previously been attempted in the area of liver failure. A clinical trial demonstrated feasibility of using cell culture of hepatocytes to act as a "liver assist device". These devices are currently in Phase 3 of clinical trials<sup>1,2</sup>.

The filed patent describes a similar approach to those used in liver failure, with the exception that instead of using hepatocytes outside of the body, the device uses AmnioStem™ amniotic fluid derived stem cells.

"Previous studies from Stanford University<sup>3</sup> and Harvard University<sup>4</sup> have shown that if the circulation of an aged mouse is connected to the circulation of a young mouse, various factors secreted by young mice induce an anti-aging/rejuvenating effects on organs/tissues of aged mice. Through this patent, we are aiming to recapitulate this effect, in an ethical and technically feasible manner." Said Dr. Thomas Ichim, the Company's Chief Scientific Officer. "What is stunning about the AmnioStem™ stem cell, which was licensed by the Company from the University of California San Diego, is that it possesses many regenerative features but is collected from non-controversial sources."

The AmnioStem™ stem cell is derived from amniotic fluid during the process of amniocentesis. Amniotic fluid is typically considered medical waste. Scientists at University of California San Diego have developed means of extracting and growing stem cells from the amniotic fluid. These stem cells have been published to be capable of treating animal models of numerous diseases including stroke<sup>5</sup>, heart attack<sup>6</sup>, liver failure<sup>7</sup>, colitis<sup>8</sup>, diabetes<sup>9</sup>, emphysema<sup>10</sup>, and kidney injury<sup>11</sup>. An important activity of amniotic fluid stem cells is that cells derived from one person can be used to treat other people, making them "universal donor" stem cells.

"The concept of using young blood to stimulate regeneration in aged individuals is attracting much attention in the area of regenerative medicine. I am enthusiastic about the approach being developed by Creative Medical Technology Holdings, which overcomes some of the important roadblocks that prevent implementation of this novel and promising approach," said Amit Patel, MD, MS, Chief of Cardiothoracic Surgery University of Miami and coinventor of the patent.

"At Creative Medical Technology Holdings we are committed to advancing regenerative medicine to various areas of human suffering. In contrast to other conditions, aging will occur in everyone," said Timothy Warbington, President and CEO of Creative Medical Technology Holdings. "While the field of anti-aging medicine is filled with various false hopes and hype, we are attempting to address this problem cautiously and methodologically through testing our technology for safety and efficacy.

"Our goal is to continue to internally develop and patent technology in the regenerative medicine space and to broaden our patent portfolio for future commercialization by the company and/or with other life science companies with complementary technology."

### **About Creative Medical Technology Holdings**

Creative Medical Technology Holdings, Inc. is a commercial stage biotechnology company currently trading on the OTCQB under the ticker symbol CELZ. For further information about the company go to [www.creativemedicaltechnology.com](http://www.creativemedicaltechnology.com).

### **Forward Looking Statements**

OTC Markets has not reviewed and does not accept responsibility for the adequacy or accuracy of this release. This news release may contain forward-looking statements including but not limited to comments regarding the

timing and content of upcoming clinical trials and laboratory results, marketing efforts, funding, etc. Forward-looking statements address future events and conditions and, therefore, involve inherent risks and uncertainties. Actual results may differ materially from those currently anticipated in such statements. See the periodic and other reports filed by Creative Medical Technology Holdings, Inc. with the Securities and Exchange Commission and available on the Commission's website at [www.sec.gov](http://www.sec.gov).

<sup>1</sup> Sussman et al. **The Hepatix extracorporeal liver assist device: initial clinical experience.** Artif Organs. 1994 May;18(5):390-6. <https://www.ncbi.nlm.nih.gov/pubmed/8037614>

<sup>2</sup> <http://vitaltherapies.com/elad/technology/>

<sup>3</sup> Conboy et al. **Rejuvenation of aged progenitor cells by exposure to a young systemic environment.** Nature. 2005 Feb 17;433(7027):760-4. <https://www.ncbi.nlm.nih.gov/pubmed/15716955>

<sup>4</sup> Katsimpardi et al. **Vascular and neurogenic rejuvenation of the aging mouse brain by young systemic factors.** Science. 2014 May 9;344(6184):630-4. <https://www.ncbi.nlm.nih.gov/pubmed/24797482>

<sup>5</sup> Tajiri et al. **Therapeutic outcomes of transplantation of amniotic fluid-derived stem cells in experimental ischemic stroke.** Front Cell Neurosci. 2014 Aug 13;8:227. <http://www.ncbi.nlm.nih.gov/pubmed/25165432>

<sup>6</sup> Bollini et al. **Amniotic fluid stem cells are cardioprotective following acute myocardial infarction.** Stem Cells Dev. 2011 Nov;20(11):1985-94. <http://www.ncbi.nlm.nih.gov/pubmed/21534857>

<sup>7</sup> Peng et al. **Therapeutic potential of amniotic-fluid-derived stem cells on liver fibrosis model in mice.** Taiwan J Obstet Gynecol. 2014 Jun;53(2):151-7. <http://www.ncbi.nlm.nih.gov/pubmed/25017258>

<sup>8</sup> Zani et al. **Amniotic fluid stem cells improve survival and enhance repair of damaged intestine in necrotising enterocolitis via a COX-2 dependent mechanism.** Gut. 2014 Feb;63(2):300-9. <http://www.ncbi.nlm.nih.gov/pubmed/23525603>

<sup>9</sup> Villani et al. **Amniotic fluid stem cells prevent  $\beta$ -cell injury.** Cytotherapy 2014 Jan;16(1):41-55. <http://www.ncbi.nlm.nih.gov/pubmed/24210784>

<sup>10</sup> Li et al. **Therapeutic effects of amniotic fluid-derived mesenchymal stromal cells on lung injury in rats with emphysema.** Respir Res. 2014 Oct 16;15:120. <http://www.ncbi.nlm.nih.gov/pubmed/25319435>

<sup>11</sup> Morigi et al. **Cell therapy for kidney injury: different options and mechanisms--mesenchymal and amniotic fluid stem cells.** Nephron Exp Nephrol. 2014;126(2):59. <http://www.ncbi.nlm.nih.gov/pubmed/24854642>

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