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Endonovo Therapeutics Developing Next-Generation Cell Therapy for Acute and Chronic Graft-Versus-Host Disease Using Cell-Enhancing Cytotronics Platform

Cytotronics™ Platform Allows for the Large-Scale Expansion and Enhancement of Immuno-Regulatory Stem Cells With Enhanced Biological and Therapeutic Properties

LOS ANGELES, CA -- (Marketwired) -- 11/03/15 -- [Endonovo Therapeutics, Inc.](#) (OTCQB: ENDV) ("Endonovo" or the "Company"), an innovative biotechnology company developing bioelectronics-based products and therapies for regenerative medicine, announced that it is developing a next-generation, off-the-shelf treatment for Graft-Versus-Host Disease (GVHD) using Cytotronics™ expanded and ex vivo enhanced stem cells from the human umbilical cord.

"We have taken our method of expanding a population of immune privileged stem cells from the human umbilical cord and combined it with our Cytotronics platform to create large quantities of optimized immuno-regulatory stem cells that can be used as an allogeneic, off-the-shelf therapy for the treatment of Graft-Versus-Host Disease," commented Endonovo Chief Scientist, Dr. Donnie Rudd.

Graft-Versus-Host Disease (GVHD) is a common complication following allogeneic tissue transplants, including bone marrow and cord blood transplants, wherein immune cells in the transplanted tissue (the graft) recognize the recipient (the host) as "foreign" and begin to attack the host's cells. Acute GVHD can result in significant damage to the liver, skin, mucosa and the gastrointestinal tract and is a major issue associated with high morbidity and mortality in transplants. The incidence of grade II-IV acute GVHD has been reported to vary between 20-85% in hematopoietic stem cell transplants.

Mesenchymal stem cells (MSCs) are captivating scientists around the world due to their therapeutic nature and ability to be harvested and cultivated quickly. These stem cells are being used to treat a wide variety of inflammatory diseases and have been suggested in the treatment of acute GVHD after bone marrow transplantation due to their ability to modulate the immune response.

Nonetheless, despite the promise of current MSC-based therapies, their poor engraftment and their short-term survival when transplanted are still major limitations to the effective therapeutic use of these stem cells.

"Our Cytotronics platform is particularly suited to address many of the issues that have

plagued stem cell therapies that have recently failed, such as their loss of potency and self-renewal when expanded *ex vivo*, their poor engraftment and their limited ability to survive when transplanted," says Dr. Rudd.

Endonovo previously [announced](#) a method and composition process for the creation of a cell mixture from a portion of the human umbilical cord co-cultured with adipose-derived stem cells. The resulting cell mixture provides for a rich source of highly-proliferative, immunosuppressive and non-alloreactive cells that display neither of the major histocompatibility markers (HLA double negative). These immune privileged cells thus represent a significant source of cells for allogeneic mesenchymal cell-based therapies.

Endonovo Therapeutics has used this new technology to create a biologically potent, off-the-shelf, allogeneic treatment for Graft-Versus-Host disease and a wide-array of other conditions.

The Company believes that its development of next-generation cell therapies that have been enhanced *ex vivo* using its Cytotronics™ platform will be a major innovation in the regenerative medicine market, which is expected to increase from US\$2.6 billion in 2012 to US\$6.5 billion by 2019, according to [Transparency Market Research](#).

"We are very excited to be a leader in the development of next-generation, *ex vivo* enhanced cells for regenerative medicine," stated Endonovo CEO, Alan Collier. "We have seen several stem cell therapies fail in clinical trials over the last couple of years, which points to a critical need for the development of methods to increase the biological and therapeutic properties of stem cells."

"We believe that enhancing the biological and therapeutic properties of stem cells using bioelectronics is the future of cell-based therapies," concluded Mr. Collier.

About Endonovo Therapeutics

Endonovo Therapeutics, Inc. is an innovative biotechnology company developing bioelectronic devices and therapies for regenerative medicine. Endonovo's Immunotronics™ platform is a non-invasive, non-implantable bioelectronic device for treating/preventing vital organ failure through the reduction of inflammation, cell death and the promotion of regeneration. Endonovo's Cytotronics™ platform provides for a method of expanding and enhancing the biological and therapeutic properties of cells for the development of next-generation cell therapies. The Company's initial concentration is on the treatment of acute and chronic inflammatory conditions of the liver using its proprietary Immunotronics™ platform and the treatment of Graft-Versus-Host Disease using its *ex vivo* expanded and enhanced stem cells.

Safe Harbor Statement

This press release contains information that constitutes forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements, trends, analysis, and other information contained in this press release including words such as "anticipate," "believe," "plan," "estimate," "expect," "intend," and other similar expressions of opinion, constitute forward-looking statements. Any such forward-looking statements involve risks and uncertainties that could cause actual results to

differ materially from any future results described within the forward-looking statements. Risk factors that could contribute to such differences include those matters more fully disclosed in the Company's reports filed with the Securities and Exchange Commission. The forward-looking information provided herein represents the Company's estimates as of the date of the press release, and subsequent events and developments may cause the Company's estimates to change. The Company specifically disclaims any obligation to update the forward-looking information in the future. Therefore, this forward-looking information should not be relied upon as representing the Company's estimates of its future financial performance as of any date subsequent to the date of this press release.

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