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Osiris Announces Scientific Manuscript Comparing Impact of Preservation Methods on Tissue Integrity and Functionality is Available Electronically in Peer-Reviewed Journal

COLUMBIA, Md., April 13, 2017 (GLOBE NEWSWIRE) -- [Osiris Therapeutics, Inc.](#) (Pink Sheets:OSIR), a leading regenerative medicine company focused on developing and marketing products for wound care, orthopedics, and sports medicine, announced today that a new peer-reviewed manuscript entitled "Understanding the Impact of Preservation Methods on the Integrity and Functionality of Placental Allografts" has been published in the *Annals of Plastic Surgery* and is available [on line](#).

Tissue allografts, including placental membranes, have a long history of clinical use for a broad variety of diseases and conditions. However, short storage time precluded widespread use of fresh tissue. Advances in tissue preservation allows practitioners to overcome the practical shortcomings facing use of fresh tissues, however, different preservation methods can lead to varying degrees of damage to the tissue components that, in turn, may have negative impact on regenerative properties of tissues. In the published study, cryopreserved viable and dehydrated irradiated devitalized placental membranes were compared in wound-relevant models *in vitro* to determine the effect of two different processing methods on structural and functional properties of placental tissues. Data demonstrates that the cryopreserved viable placental membrane retains intact, native matrix and viable cells comparable to fresh tissue and responds to chronic wound stimuli in *in vitro* in a manner equivalent to fresh tissue. Dehydration and radiation causes alterations of placental tissue structure and loss of cellular viability that correlates with a decrease in functionality. The study's results conclude that preservation of both structural and cellular integrity of fresh placental tissue is required for full retention of regenerative potential of the tissues.

About Osiris Therapeutics

Osiris Therapeutics, Inc., based in Columbia, Maryland, is a world leader in researching, developing, and marketing regenerative medicine products that improve health and lives of patients and lower overall healthcare costs. Having developed the world's first approved stem cell drug, the Company continues to advance its research and development in biotechnology by focusing on innovation in regenerative medicine — including bioengineering, stem cell research and viable tissue based products. Osiris has achieved commercial success with products in wound care, orthopedics, and sports medicine, including Grafix®, Stravix®, BIO4®, and Cartiform®. Osiris, Grafix, Stravix and Cartiform are registered trademarks of Osiris Therapeutics, Inc., and BIO4 is a registered trademark of Howmedica Osteonics Corp. Osiris makes no claims concerning functional activities of Grafix or Stravix. Although well characterized in scientific literature and studies, preservation of tissue integrity including cells may not be indicative of clinical outcome. More information can be found on the Company's website, www.Osiris.com. (OSIR-G)

Forward-Looking Statements

This press release contains forward-looking statements. Forward-looking statements include statements about our expectations, beliefs, plans, objectives, intentions, assumptions and other statements that are not historical facts. Words or phrases such as "anticipate," "believe," "continue," "ongoing," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project" or similar words or phrases, or the negatives of those words or phrases, may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking. Forward-looking statements are subject to known and unknown risks and uncertainties and are based on potentially inaccurate assumptions that could cause actual results to differ materially from those expected or implied by the forward-looking statements. Examples of forward-looking statements may include, without limitation, statements regarding the anticipated efficiencies and advantages of products or services and the likelihood of customer clinical adoption of new services. Although well characterized in scientific literature and studies, preservation of tissue integrity including cells may not be indicative of clinical outcome. Accordingly, you should not unduly rely on these forward-looking statements. We undertake no obligation to publicly revise any forward-looking statement to reflect circumstances or events after the date of this press release or to reflect the occurrence of unanticipated events.

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