



Osiris Therapeutics, Inc. Announces Peer-Reviewed Publication Demonstrating That Lyopreservation Method Developed for Living Tissues is an Alternative to Cryopreservation with the Convenience of Ambient Storage

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COLUMBIA, Md., Oct. 02, 2018 (GLOBE NEWSWIRE) -- Osiris Therapeutics, Inc. (NASDAQ: OSIR), a 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 "Properties of Viable Lyopreserved Amnion Are Equivalent to Viable Cryopreserved Amnion with the Convenience of Ambient Storage" has been published in PLOS ONE and is available online <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0204060>.

In the published study the structural, molecular, and wound relevant properties of a lyopreserved human amniotic membrane were compared with the properties of a cryopreserved human amniotic membrane. Results showed that the structure, growth factors, and cell viability of the lyopreserved amnion are comparable to that of cryopreserved and fresh amnions. Properties of lyopreserved and cryopreserved amniotic membranes were tested in vivo in a diabetic mouse chronic wound model, which mimics impaired wound healing reported in diabetic patients. Both lyopreserved and cryopreserved amnion weekly applications resulted in wound closure by day 35 whereas in the saline gel control group of animals wounds became larger.

"We are very pleased to announce this scientific publication describing properties of amniotic tissue processed by the lyopreservation method developed by the Osiris R&D team," said Dr. Alla Danilkovitch, Chief Scientific Officer. "The data supports that the new tissue preservation method is similar to cryopreservation in that it retains all native components of fresh amnion, however it eliminates 'cold chain' constraints."

About Osiris Therapeutics

Osiris Therapeutics, Inc., based in Columbia, Maryland, researches, develops, manufactures and commercializes regenerative medicine products intended to improve the health and lives of patients and lower overall healthcare costs. We have achieved commercial success with products in orthopedics, sports medicine and wound care, including the Grafix product line, Stravix[®], BIO⁴[®] and Cartiform[®]. We continue to advance our research and development by focusing on innovation in regenerative medicine, including the development of bioengineered stem cell and tissue-based products. Osiris[®], Grafix[®], GrafixPL[®], GrafixPL PRIME[™] Cartiform[®], and Prestige LyotechnologySM are our trademarks. BIO⁴[®] is a trademark of Howmedica Osteonics Corp., a subsidiary of Stryker Corporation. More information can be found on the Company's website, www.Osiris.com. (OSIR-G)

Forward-Looking Statements

Statements herein relating to the future of Osiris Therapeutics, Inc. and the ongoing research and development of our products are forward-looking statements. Osiris Therapeutics, Inc. cautions that these forward-looking statements are subject to numerous risks and uncertainties, which could cause actual results to differ materially from those expressed or implied by such statements. These risks and uncertainties include those identified under the heading "Risk Factors" in the Osiris Therapeutics Inc. Annual Report on Form 10-K for the years ended December 31, 2017, 2016 and 2015 and Quarterly Report on Form 10-Q for the quarters ended March 31, 2018 and June 30, 2018, as filed with the Securities and Exchange Commission (SEC). We caution investors not to place considerable reliance on the forward-looking statements contained in this press release. Examples of forward-looking statements may include, without limitation, statements regarding the anticipated efficiencies and advantages of products and the likelihood of customer clinical adoption of any new products. 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. You are encouraged to read our filings with the SEC, available at sec.gov, for a discussion of these and other risks and uncertainties. The forward-looking statements in this press release speak only as of the date of this document, and we undertake no obligation to update or revise any of the statements. Our business is subject to substantial risks and uncertainties, including those referenced above. Investors, potential investors, and others should give careful consideration to these risks and uncertainties.

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