

Asymmetrex[®] Publishes First Rating of the Effects of Commercial Growth Factors Used for Stem Cell Biomanufacturing

Asymmetrex® Rates Commercial Growth Factors' Effects on Mesenchymal Stem Cells.

BOSTON, MASSACHUSETTS, UNITED STATES, February 28, 2023 /EINPresswire.com/ -- On last Thursday, February 23, the research journal Life published another technological first from Boston stem cell biotechnology company Asymmetrex[®]. As an invited peer-reviewed <u>original research report</u> in a special issue on "Stem Cells in Regeneration and Diseases," the



company published the first technology that can define and quantify specific differences in the effects of commercial growth factors on the production of tissue stem cells used in research and medicine.

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> Asymmetrex® President & CEO James L. Sherley, M.D., Ph.D.

Tissue stem cells in the body are responsible for maintaining, repairing, and renewing organs and tissues. Well-described examples are therapeutic blood stem cells and stem cells found in fat or "adipose" tissue. In regenerative medicine, isolated tissue stem cells are transplanted to repair or replace damaged or diseased organs and tissues. Most recently, there has been growing demand for adipose tissue stem cells, called mesenchymal stem cells, for evaluation of their potential to increase healing, reduce detrimental inflammation reactions, and even for cosmetic applications.

Despite their importance, the biology of tissue stem cells

causes them to be a tiny fraction of the total cells in organs and tissues. For this reason,

artificially producing more of them for use in biomedical research and medical therapies is a major focus of the emerging cell biomanufacturing industry.

Until Asymmetrex's recent introduction of its kinetic stem cell (KSC) counting technology, stem cell biomanufacturers had no general method available to evaluate whether growth factors added for the purpose of increasing their production of tissue stem cells actually did. In fact, there continues to be a healthy suspicion that many commonly supplemented factors do not.

In its new report, Asymmetrex[®] shows that it can resolve this question definitively and quantitatively. The company's <u>TORTOISE Test</u>[®] software was used to quantify and rate the effects of 6 different commercial preparations of growth factors commonly used with the intent of increasing the production of adipose mesenchymal stem cells. The report confirmed for the first time that some products were clearly superior to others for increasing the production of the stem cells. The key advance of Asymmetrex's technology is the ability to distinguish the proliferation of stem cells from the proliferation of other cell types that predominate in isolated tissue cell preparations.

"This new ability to quantify the effects of commercial and proprietary factors specifically on stem cells during cell biomanufacturing has many applications that will improve research and medicine." Asymmetrex[®] President & CEO, Dr. James L. Sherley, M.D., Ph.D., goes own to emphasize, "It's the ability to count tissue stem cells specifically at any time that makes all the rest possible. And at Asymmetrex[®], we count stem cells like no one else can."

About Asymmetrex[®]

Asymmetrex[®], LLC is a Massachusetts life sciences company with a focus on developing technologies to advance stem cell medicine. The company's U.S. and U.K. patent portfolio contains biotechnologies that solve the two main technical problems – stem cell-specific quantification and stem cell expansion – that have stood in the way of more-effective use of human adult tissue stem cells for regenerative medicine and drug development. Asymmetrex markets kinetic stem cell (KSC) counting, the first technology for determination of the dose and quality of tissue stem cell preparations for use in stem cell transplantation medicine and preclinical drug evaluations. Asymmetrex[®] is a member company of the Advanced Regenerative Manufacturing Institute (ARMI) | BioFabUSA. The company's development of rapid stem cell counting technologies has been funded by R&D grants from ARMI | BioFabUSA and the National Heart, Lung, and Blood Institute.

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