

Asymmetrex® Begins New Year with a New Report Demonstrating the Precision of Its Stem Cell Dosing Technology

In the 2024 Issue 1 of the journal Life, Asymmetrex® reports an inter-lab study demonstrating the high precision of its tissue stem cell counting technology.

BOSTON, MA, UNITED STATES, January 4, 2024 /EINPresswire.com/ -- Stem cell biotechnology company Asymmetrex® has a goal of accelerating progress in stem cell medicine, and supporting emerging industries, by leading innovation in counting tissue stem cells. All stem cells approved for stem

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Evaluation of the Precision of Kinetic Stem Cell (KSC) Counting for Specific Quantification of Human Mesenchymal Stem Cells in Heterogeneous Tissue Cell Preparations

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Asymmetrex® Publishes New Report on Stem Cell Dosage Test Precision

cell therapies and many of those in clinical development are tissue stem cells.

The major tissue stem cell type approved for stem cell medicine is the familiar hematopoietic stem cell, which is found in the bone marrow, bloodstream, and umbilical cord blood. More



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

recently approved stem cell therapies utilize tissue stem cells called mesenchymal stem cells, which are found in a variety of tissues, most notably fat tissue.

Though approved stem cell therapies are effective for some patients, they often underperform for others. An important cause of stem cell treatment failures is too few stem cells in the treatment samples. Insufficient stem cell dosage occurs because no method is available to quantify the number of tissue stem cells in treatment samples.

Since 2020, Asymmetrex® published four research reports describing the company's development and validation of a first method for routine determination of the number of tissue stem cells of any type in treatment samples. <u>The company's latest report</u>, published in the 2024 first issue of the journal Life, provides an evaluation of the precision of its counting method

based on testing of the same tissue stem cell preparation by three geographically different laboratories using the company's counting method, called <u>kinetic stem cell counting</u>.

The reported inter-lab data establish that the method has a high degree of precision. Importantly, the level of precision is sufficient for the method to become the first effective standard test for the stem cell dosage in currently approved stem cell therapies and in stem cell clinical trials. James L. Sherley, M.D., Ph.D., the president and CEO of Asymmetrex®, predicts, "This innovation will improve the outcomes of patients receiving stem cell therapies and stem cell-based gene therapies."

A standardized test for quantifying tissue stem cells will also improve other disciplines that support stem cell medicine, such as tissue stem cell research and cell and tissue biomanufacturing. New applications also exist in the pharmaceutical industry for testing of drug candidates' effects on important tissue stem cells, such as bone marrow stem cells and liver stem cells, which determine drug effectiveness and drug safety.

CEO Sherley explains, "This is another important milestone in Asymmetrex®'s vision of reforming stem cell science and medicine into becoming quantitative disciplines. The ability to quantify their essential factors, the tissue stem cells, has been needed for far too long!"

Related to the newly reported precision studies, the company recently spearheaded the <u>submission of an application</u> for a new standard test method to the American Society for Testing and Materials. If approved, the new ASTM standard would establish a certified industry procedure for culturing tissue cells by the method used for Asymmetrex®'s stem cell counting technology. This procedure, called cumulative population doubling analysis, is widely applied in both academia and industry for analysis of tissue cell samples used in stem cell medicine and drug development. By leading the development of a first industry standard for CPD analyses, Asymmetrex® is providing an important service to the stem cell and regenerative medicine industry that also lays the groundwork for a future ASTM standard for tissue stem cell counting itself.

About Asymmetrex®

Asymmetrex®, LLC is a U.S. 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 pre-clinical 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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