

Scaffold Free Magnetic 3D Methodologies Found to Be Better Suited for Analysis of ECM Protein Regulation

A recent study published in Science Direct showcases the pivotal role that appropriate 3D architecture plays in the creation of in-vivo models.

MONROE, NORTH CAROLINA, UNITED STATES, May 24, 2021 /EINPresswire.com/ -- A recent study published on May 12th, 2021 in Science Direct titled "Scaffold-free [3D cell culture](#) of primary skin fibroblasts induces profound changes of the matrisome" showcases the difference in outcomes when scaffold-free methods are used for spheroid growth compared to scaffolded options when used on primary normal human fibroblasts.

The published study used quantitative mass spectrometry-based proteomics in combination with magnetic 3D bioprinting and characterized changes in the proteome of skin fibroblasts and squamous cell carcinoma cells. It was determined that Transferring cells from 2D to 3D without any additional scaffold induces a profound upregulation of matrisome proteins indicating the generation of a complex, tissue-like extra-cellular matrix.

Magnetic 3D bioprinting methodologies used in this study were a proprietary product line of products from Greiner Bio-One included in a 6-well Bio-Assembler Kit which includes a cell-repellent 6 well plate, magnetic concentrating drive, and magnetization of cells was achieved through magnetic nanoparticles known as NanoShuttle™.

The open-source study can be found in its entirety at Science Direct at the following location. <https://www.sciencedirect.com/science/article/pii/S2590028521000107?via%3Dihub#f0005>

++++

About Magnetic 3D Cell Culture Products and Methods

The core technology of Greiner Bio-One's Magnetic 3D Cell Culture is the magnetization of cells with biocompatible NanoShuttle™-PL. The reproducible formation of one spheroid per well in an F-bottom plate with Cell-Repellent surface is forced by magnets either by levitation or bioprinting, to form structurally and biologically representative 3D models in-vitro. For more information regarding these products, please visit <https://3dcellculture.gbo.com/>.

Greiner Bio-One North America, Inc.

Greiner Bio-One North America, Inc. is a privately held plastic manufacturing company located in Monroe, NC whose three divisions manufacture a variety of products for the medical and research fields. The manufactured products include plasticware for the cultivation and analysis of cell and tissue cultures, microplates for high-throughput screening related to drug screening, products for blood and specimen collection, tests for the detection of bacteria and viruses, as well as, custom-made products. As an international manufacturer with global reach, Greiner Bio-One provides the manufacturing, distribution logistics and product application support to the world's largest hospitals, pharmaceutical and biotechnology corporations.

For more information about Greiner Bio-One North America, Inc. please visit <http://www.gbo.com>.

Mackenzie Farone
Greiner Bio-One
+1 7042387646
[email us here](#)

Visit us on social media:

[Facebook](#)

[Twitter](#)

[LinkedIn](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/541962458>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2021 IPD Group, Inc. All Right Reserved.