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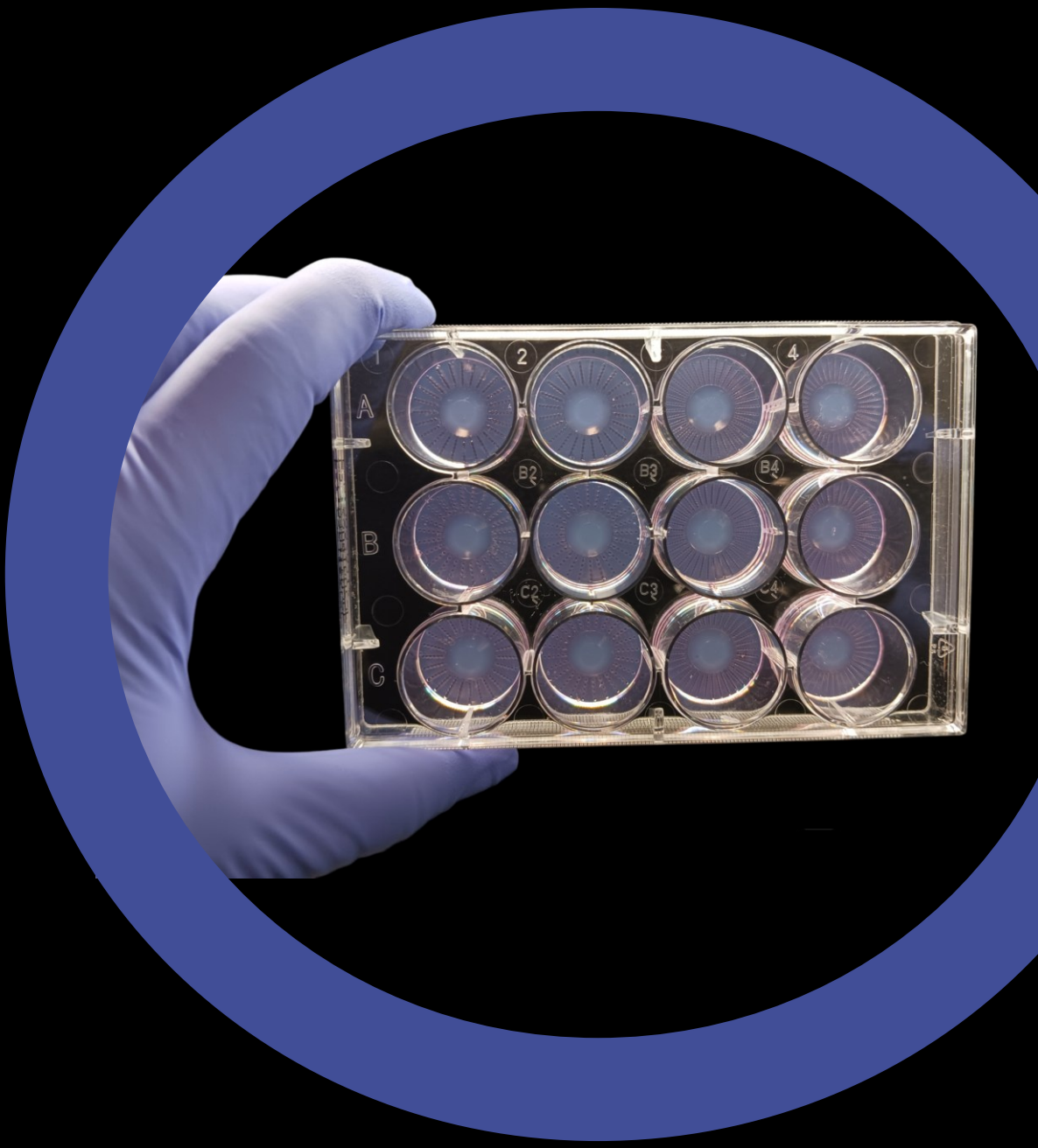

TruSphere™

Next Gen 3D Tissue Culture Plate

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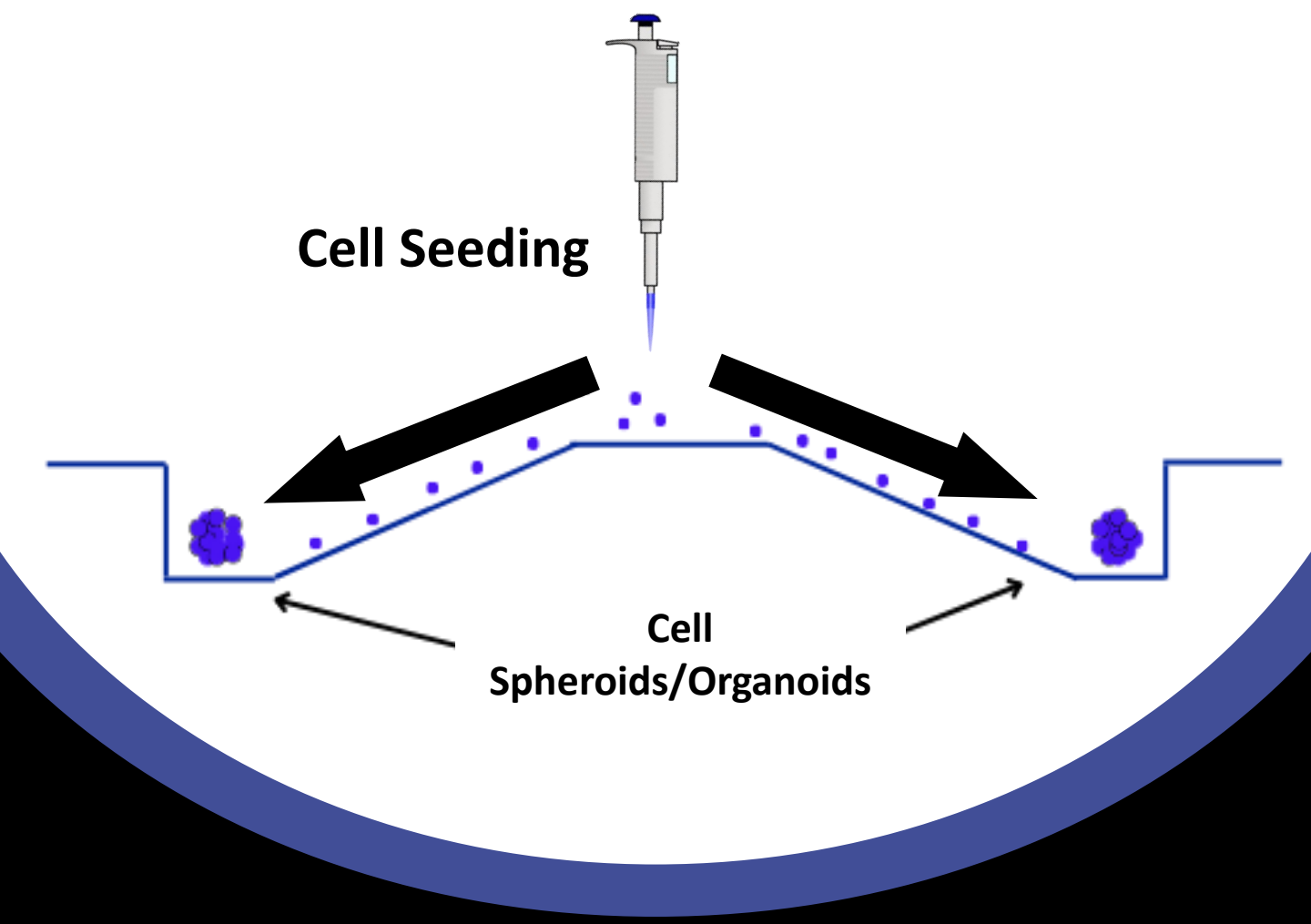
TruSphere Plate™

The TruSphere Plate™ is a hydrogel-based insert that fits within each well of a **6, 12 ,24-well plate**. Its unique design enables the creation of up to 3500 spheroids/ organoids per plate from a single pipetting step in each well. The insert supports a variety of cell types and enables realistic modelling of cell-cell interactions. The TruSphere platform makes 3D culture faster, more reproducible, and better suited to real-time and post-experimental analysis.



TruSphere™ Advantages

Large-Scale Culture

Create up to 3500 uniform spheroids and organoids from a single, hassle-free pipetting step.

Easy IHC and H&E Analysis

Spheroids can be paraffin embedded and sliced directly within the TruSphere™, enabling in situ IHC analysis.

Easy Media Changes

The TruSphere™ Plate enables disturbance free media exchanges, eliminating the possibility of aspirating spheroids when replacing media.

Immunostaining + Imaging

The TruSphere™ Plate lets you do all your staining and imaging directly on the plate, eliminating the need for spheroid removal.

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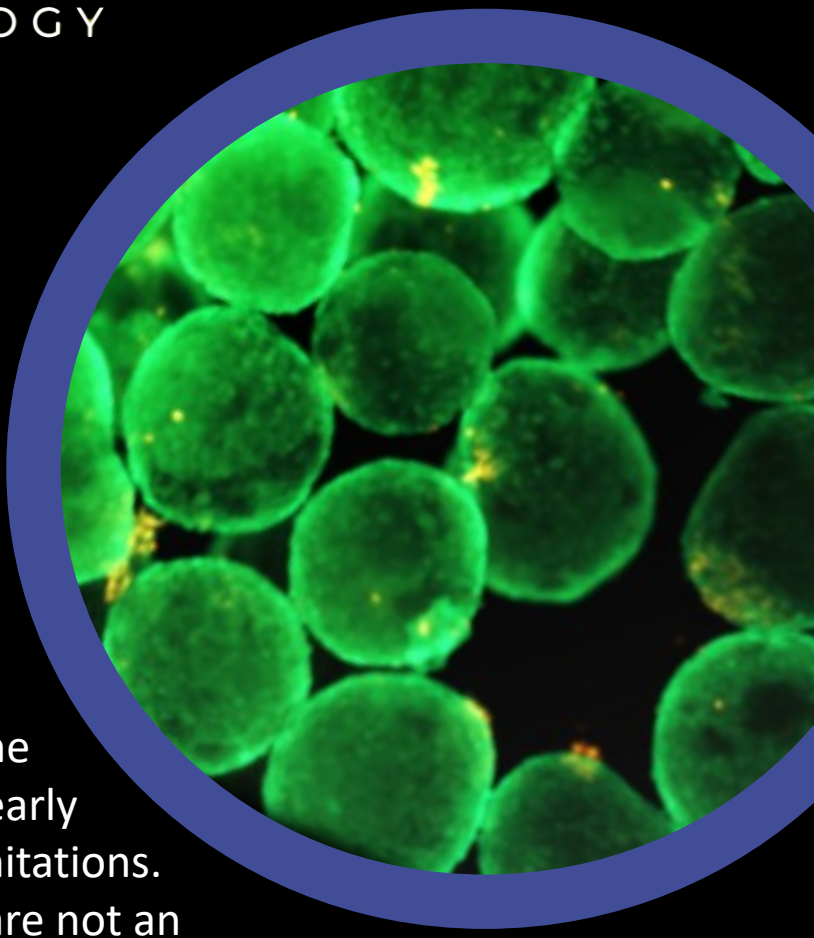
Why 3D?



2D cell cultures have been the industry standard since the early 1900s, despite significant limitations. Simply put, 2D cell cultures are not an accurate representation of in vivo tissue because cells do not exist in 2D planes within the human body.

In the last decade 3D cell culture has become an increasingly popular research tool used for modelling cancer. When grown in 3D, tumor cells are no longer restricted to growing within a monolayer, and can begin to adhere to each other and the extracellular matrix, mimicking the native microenvironment from which the cells originated. Gene expression profiles of tumor cells from 3D cultures more accurately reflect clinical expression profiles than those observed in 2D cultures. There is also increased cell-cell and cell-matrix communication, proliferation differences, increased survival rates and relevant pH, nutrient and oxygen gradients.

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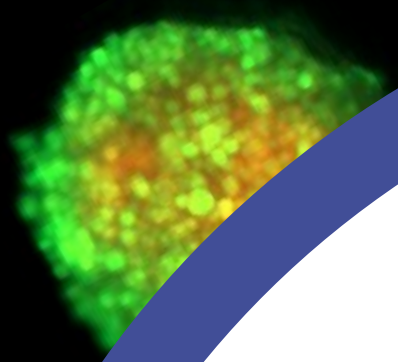

Applications

01.

3D Tissue Culture

The TruSphere Plate™ allows users to create spheroid models quickly and reproducibly. With just one seeding step, users can get up to 580 uniform organoids per insert.

02.

OMIC's

Spheroids in the TruSphere Plate™ are amenable to a wide range of OMIC's studies and provide more physiologically relevant conditions.

03.

Assays + Imaging

Spheroids & organoids are amenable to a wide range of assays, making them suitable for a variety of experimental readouts.

04.

Drug Testing

Spheroids & organoids provide a physiologically relevant 3D model for testing the efficacy of novel and repurposed therapeutics.

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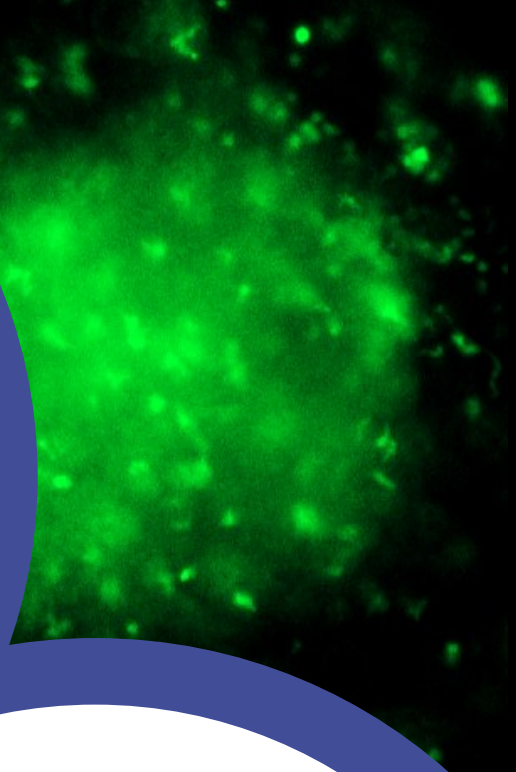
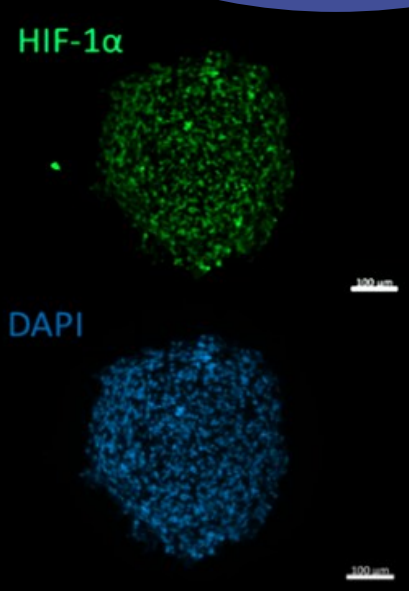
TruSphere™ Spheroids are Compatible With Different Assays and Readouts



In Situ IHC Analysis

The TruSphere™ Plate allows tumor spheroids to be treated directly in the microwell array. The treated microwells can then be embedded in paraffin for IHC analysis without the need for further manipulation.



In-Situ Immunofluorescence Imaging

The TruSphere™ insert is a hydrogel-based transparent insert compatible with in-situ immunostaining and fluorescence microscopy. The TruSphere inserts come in standard 12 & 48 well plates.

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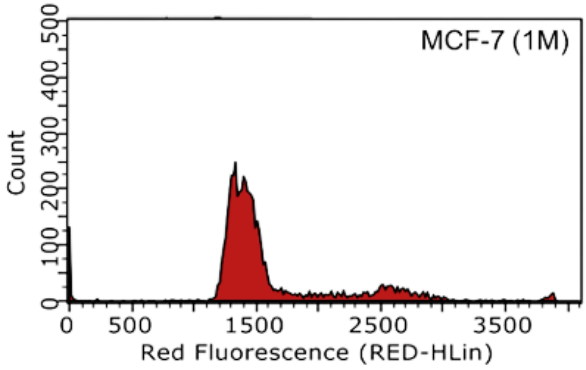
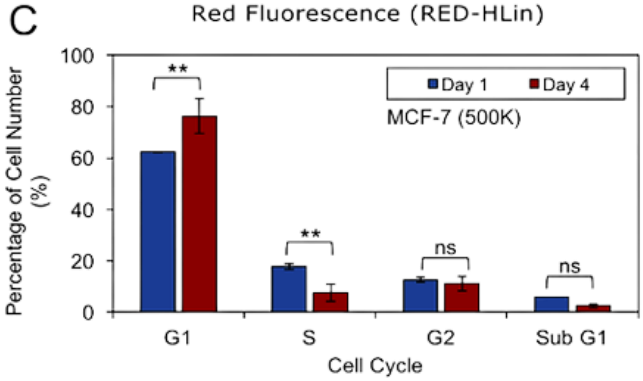
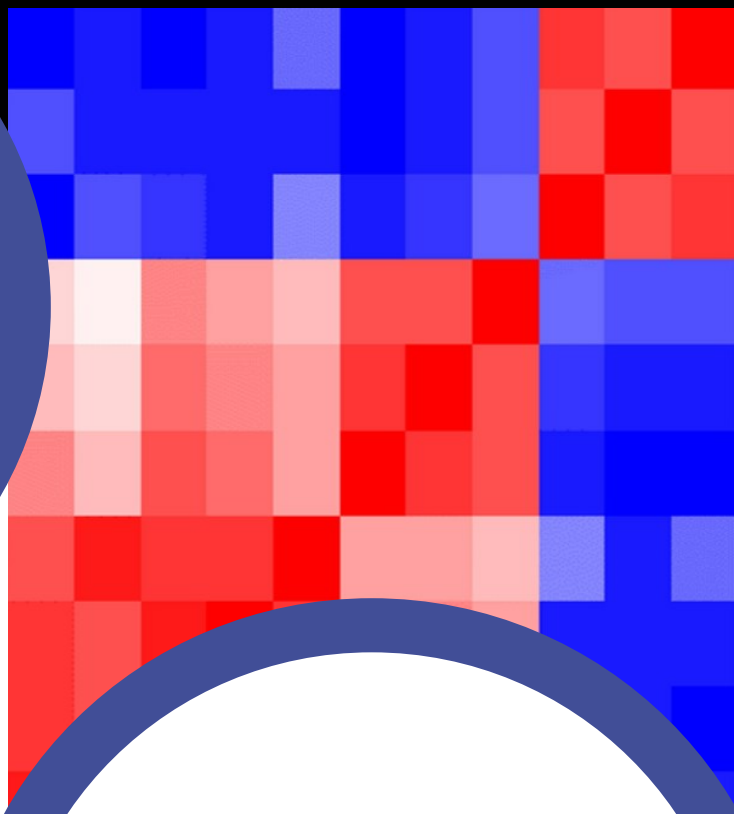
The TruSphere™ Plate is Compatible With Different Assays and Readouts

Flow Cytometry & Cell Cycle Analysis

Spheroids in the TruSphere insert can be easily dissociated on the plate for any downstream cytometry analysis.







OMIC's Analysis

Spheroids in the TruSphere Plate can be easily lysed and used for various OMIC's analysis.

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Study Design

Material Types

Cell Lines

Stem Cells

Patient-Derived Xenograft Material

Core Needle Biopsy Samples

Biopsy Surgical Resections

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About Us

Apricell Biotechnology Inc. is dedicated to reducing the attrition rate of new cancer drugs in clinical trials. In collaboration with the University, Apricell has developed a novel organoid-on-a-chip technology that opens up multiple opportunities for researchers and oncologists all the way from basic research and drug testing to advanced patient management.

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