

High-content image of a HepG2 microtissue provided by Imagen Ltd. (www.imagen-biotech.com)

# Upgrade Your Cell-based Assays to 3D

Work smarter with better biology

## 3D Microtissues: to make or buy

InSphero's scaffold-free 3D microtissues are multicellular spheroids, which are morphologically and functionally very similar to native tissue. Easily amenable to standard biochemical assays and immunostaining, they are increasingly used for pre-clinical toxicity and efficacy studies to improve biological relevance. Close cell-cell contacts, a gene expression profile closer to in vivo, an intact endogenous extracellular matrix and physiological nutrient and oxygen gradients make them ideal models to improve in-vitro cell-based assays.

Now, thanks to InSphero's GravityPLUS™ technology, you have a choice: you can either purchase high quality, well characterized microtissues ready-to-use with your standard assays – or you can start producing your own spheroids by implementing InSphero's patent-pending automated hanging-drop platform.

Of course, expert support from InSphero is always included!

**Assay-ready microtissues**

**Tumor microtissues**

**Liver microtissues**

**Custom microtissues**

**GravityPLUS™ for microtissue formation**

**GravityTRAP™ for assays**

**Competent support from culture to assay**

**GravityPLUS Platform**

1 mm

## Upgrade your cell-based assays to 3D

Scaffold-free 3D microtissues from virtually any cell type

### GravityPLUS™ Platform

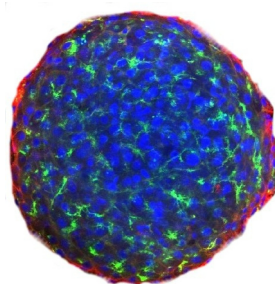
InSphero's patent pending GravityPLUS™ Platform enables the scalable formation of uniform, scaffold-free 3D microtissues in a standard 96-well format, starting from cell lines, primary cells or stem cells. Once formed, microtissues are transferred to the GravityTRAP™ receiver and assay plate which is designed for long-term cultivation and optical analysis. Compound testing with standard biochemical assays can be performed directly in the Gravity-TRAP™ plate.

#### Applications

- Acute and chronic toxicity testing
- Predictive efficacy screening
- Scaffold-free angiogenesis assays
- Stem-cell culture and differentiation
- Innovative high-content assays

### Assay-ready microtissue plates

InSphero offers a portfolio of standard microtissues delivered assay-ready in the GravityTRAP™ plate. These include tumor microtissues for oncology drug research, as well as human and rat liver microtissues for toxicology made with primary hepatocytes and non-parenchymal cells.

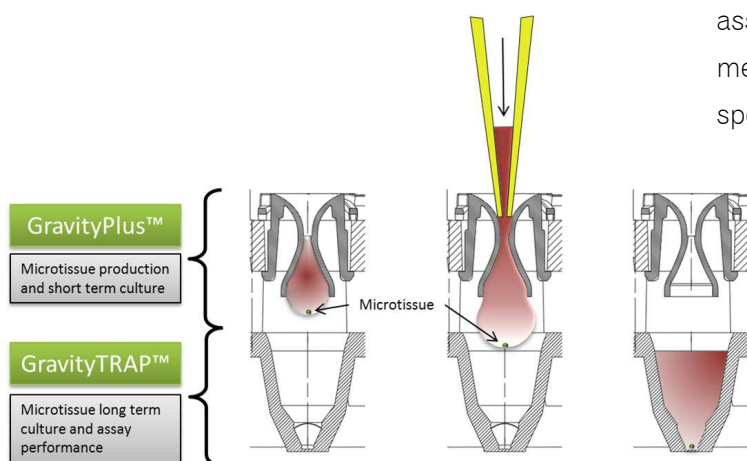


InSphero 3D microtissue facts:

- Highly functional with long culture time
- Scaffold-free, no unwanted matrix effects
- Highly uniform, less than 5% size variation possible
- Automation-compatible

### Custom services

InSphero scientists will work with you to design a specific microtissue which can subsequently be produced when needed. Other services include compound testing with 3D-qualified assays (ATP, LDH, GSH, caspase, ...), histology and metabolic assays. We are always evaluating new assay methods and can develop new assays to meet your specific needs.



The GravityPLUS™ Platform is the first hanging-drop system of its kind and a patent application was submitted in 2008 by the University of Zurich (PCT patent application WO2010031194A1). Today, 7 of the world's top 10 pharma and cosmetics companies use GravityPLUS™.



"With the introduction of our patent-pending GravityPLUS™ platform in 2009, scaffold-free 3D cell models became a reality for compound screening."

Dr. Jens Kelm  
President and Co-Founder

For more details, please visit us at [www.insphero.com](http://www.insphero.com) or contact one of our customer representatives in the US or Switzerland



QR code

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