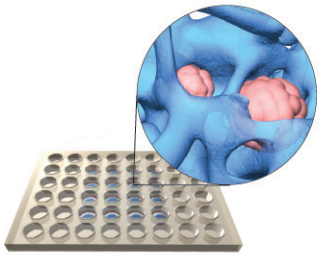
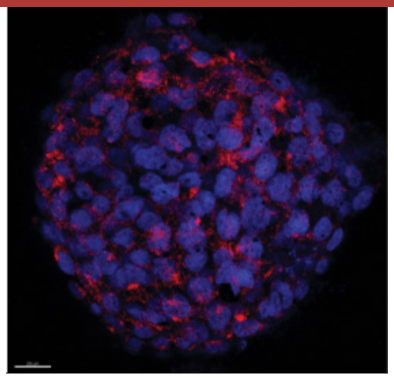
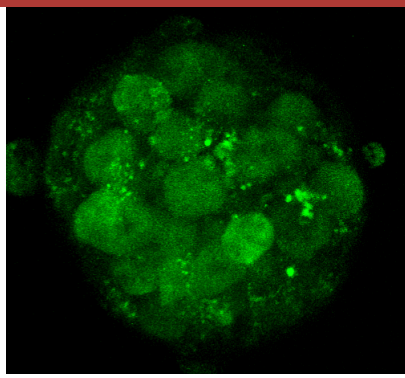
InvitroCue™
Transforming Bioanalytics

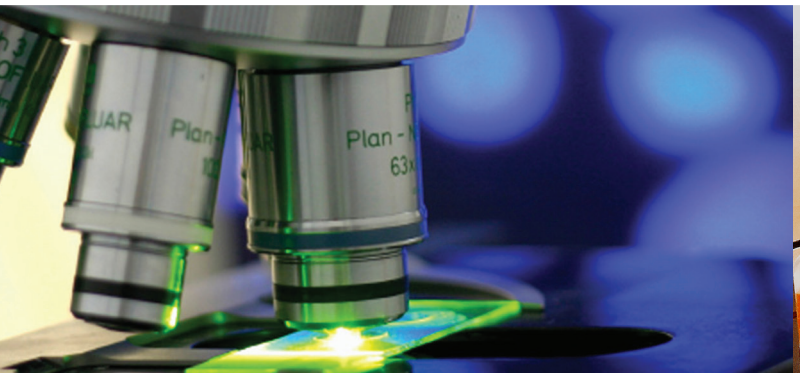
3D Cell Culture Platforms and Services

- Innovative *in vitro* platforms for 3D cell culture
- Custom platform development for cell line, stem cell, primary tumor cells and primary cell culture
- Cell-based assays: DMPK, *in vitro* toxicology, oncology, infectious disease









3D Cell Culture Platforms

Innovative *in vitro* platforms for 3D cell culture

- Excellent maintenance of 3D cell morphology, viability, and functions
- Compatible with imaging and routine downstream assays
- Easily scalable for high throughput screening

Cell-Based Assays & Services

Customized, high quality assays for your R&D needs

- *In vitro* DMPK and toxicity services
- Services for consumer healthcare and cosmetics industry
- Patient-derived organoids (oncology)
- Efficacy assays for disease modelling and infectious disease applications

3D Cell Culture Platforms

3D Cellulose Sponge Series – Novel *in vitro* Platform Technology

3D Cellulose Sponge

- Suitable for cancer cell lines, mouse fibroblasts (NIH-3T3), and human foreskin fibroblasts (HFF)

Collagen Conjugated Scaffold

- Collagen conjugated
- Suitable for hepatic progenitor cells and human mesenchymal stem cells (hMSC)

Galactose Conjugated Scaffold

- Galactose conjugated
- Suitable for primary hepatocytes & hepatic cell lines

HepatoCue Platform

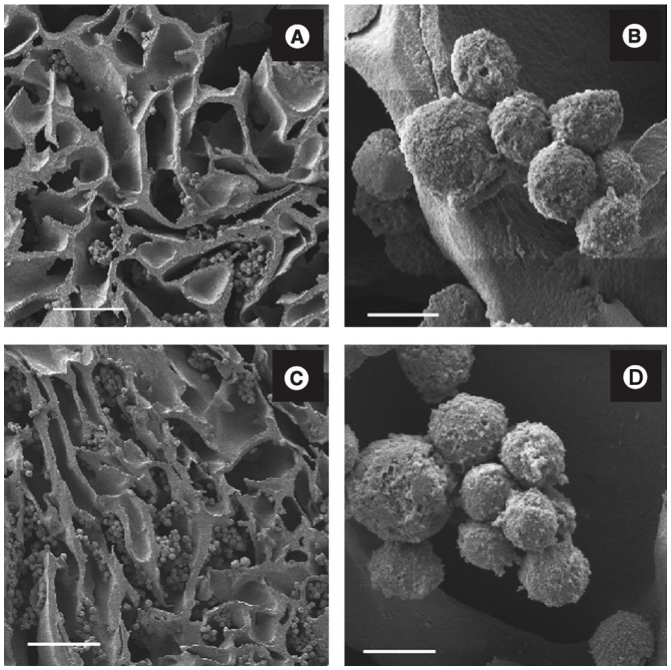
- Transparent PET film conjugated to varying ratios of RGD peptide and GAL bioligand
- Tunable cellular 3D morphology (monolayer, spheroid, tethered spheroid)

Salient Features

- Macroporous (pore size 80-150 µm)
- Homogenous distribution of spheroids
- Long term maintenance of cellular function and viability
- Compatible with different imaging modalities
- Compatible with multi-well plates, inserts, and fluidic devices
- Compatible with standard downstream analytical techniques

Applications

- 3D cell culture
- Hepatocyte culture
- *In vitro* DMPK assays
- *In vitro* toxicology
- Stem cell differentiation
- Patient-derived organoids (PDOs)
- Pathogen infection and efficacy studies



Cell-Based Assays & Services

Hepatocyte Services

- CYP 450 induction by mRNAs and activities measurement
- Induction/inhibition of other CYPs and enzymes such as Glucuronosyltransferases (UGTs) and Glutathione-S-Transferases (GSTs)
- Metabolite identification (MET ID) and clearance

Reactive Acyl Glucuronides (RAGs)

- Compound ranking of drugs that form reactive acyl glucuronides
- High throughput screening for RAG activity

In Vitro Toxicology Services

- Steatosis
  - Nile red
  - LAMP-1
- Oxidative stress reporter
- Viability
  - ATP content
  - Cell leakage
  - Cell proliferation
  - Resazurin assay

Customized drug discovery solutions

Infectious Disease

- Model development for studying pathogen life cycles
- Drug screening
- Example: Malaria, HCV, HBV

Salient Features

- Assays routinely run on primary cells, cell lines, and tumor samples
- Customized model development and customized assays with proprietary 3D cell models
- Partnerships with leading pharmaceutical companies

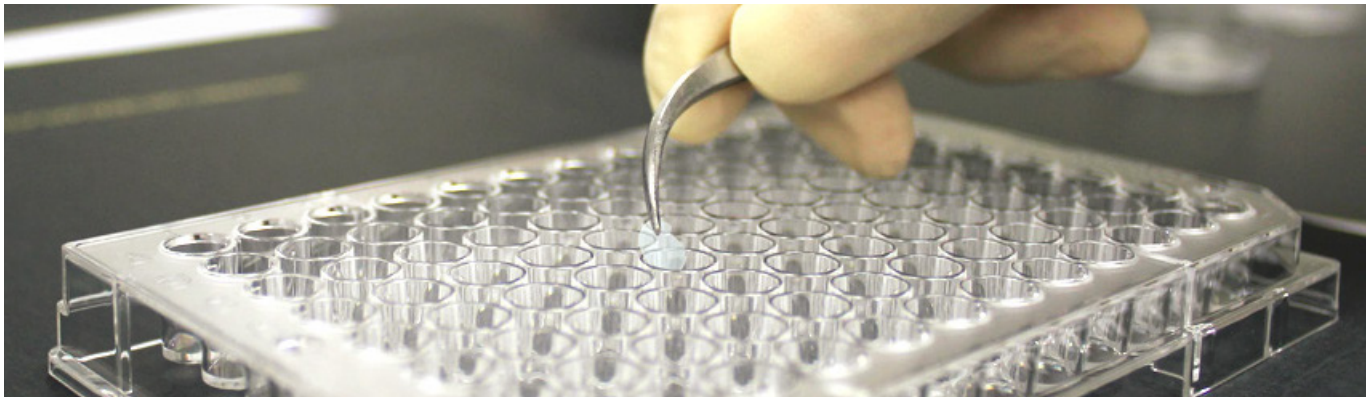
Consumer Healthcare

Customized *in vitro* assays for validating and supporting cosmetic and consumer healthcare products

- *In vitro* skin wound healing model
- *In vitro* infection model

Patient-Derived Organoids (PDOs)

- Organoids from patient tumors
- Patient-specific disease modelling *in vitro*
- Enables high-throughput drug screening and evaluation of drug responses



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