

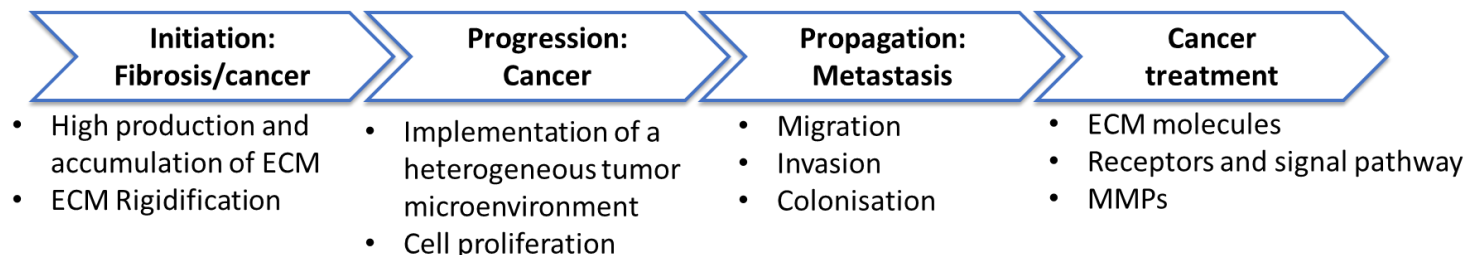
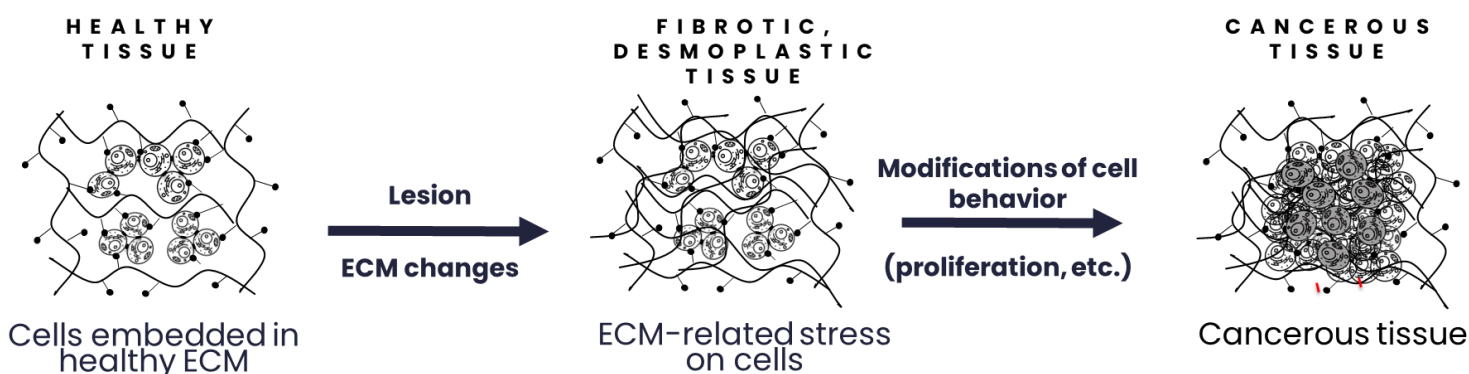


HCSPharma

CUSTOM YOUR 3D PHENOTYPIC ASSAY IN ONCOLOGY

97% of drug candidates in oncology fail in clinical trials. HCS Pharma has developed human 3D cellular model including the matricial microenvironment, in order to better select drug candidates. This model is available for High Content Screening as a service on our Robotic Platform.

The tumoral microenvironment is a key element in cancer initiation, progression and propagation



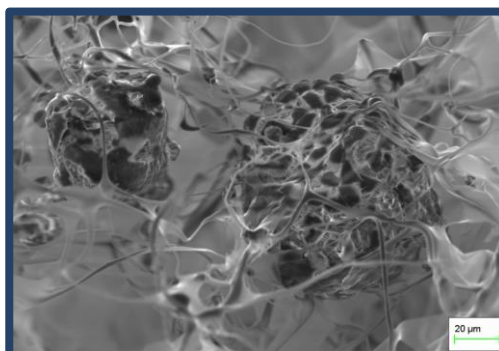
Our solution:

BIOMIMESYS® *hydroscaffold*™ is a hyaluronic acid-based matrix, grafted with structural and adhesion proteins, which mimics the extracellular matrix. Its composition and stiffness can be modulated to reproduce the matrix of any tissue in health or disease.

3D assessment in BIOMIMESYS® ensures a high predictability and a relevant selection of drug candidates.

BioMIMESYS®

Physiological
Chemically-defined
Reproducible
Versatile
Compatible for screening



Colon cancer cells invading **BIOMIMESYS®** *Oncology* as growing spheroids (SEM).



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CUSTOM YOUR 3D PHENOTYPIC ASSAY IN ONCOLOGY

Pick and choose your cellular model

Organ / Tissue

Tumor microenvironment



Metastasis microenvironment



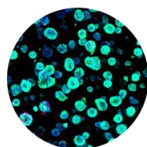
Custom microenvironment



Cell lines, iPSC derived-cells, primary cells

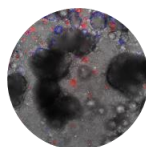
Cancerous cells

- HepG2 (Liver)
- HCT116, HT29 (colon)
- MCF-7, MDA-MB-231 (breast)
- Others



Co-culture:

- Fibroblasts
- Immune cells
- Resident cells



Format

96 or 384 wells



Custom:6-12-24-48

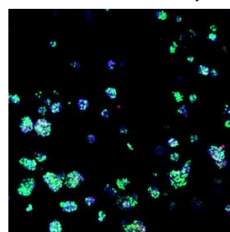
Protocol

- Primary or secondary screening
- Acute / chronic treatment
- Comparison with reference drug
- Comparison 2D / 3D
- Manual or automatized assay

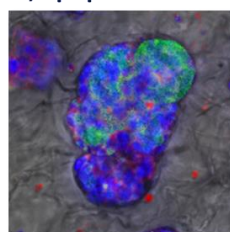


Pick and choose your read-outs

Proliferation, death, apoptosis...



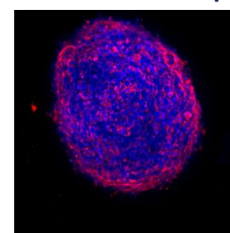
Hoechst, EdU
Liver cancer cells



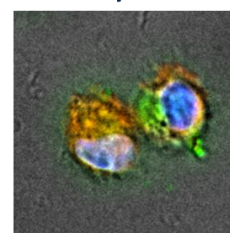
Hoechst, Live/Dead cells
HCT-116



Protein expression analysis

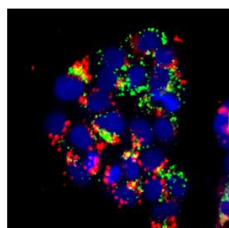


Hoechst ; CD44
Hela cells in 3D



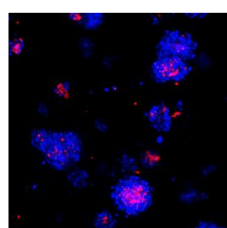
Hoechst ; CD14 ; HLA-DR
Primary human macrophages

Vacuoles, vesicles

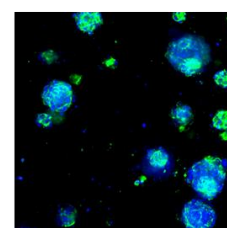


Hoechst; Neutral Lipids; Phospholipidosis
HepG2 cells

Cell structure, cytoskeleton and ECM



Hoechst; Fibronectin
Liver cancer



Hoechst; Collagen 1
Liver cancer

Check our individual flyers for more details on each model, or visit our website.