VISUALISATION OF EXTRACELLULAR MATRIX SECRETION IN CANCER CELLS

INTRODUCTION

To study the reorganization of the cellular microenvironment of cells growing in BIOMIMESYS® hydroscaffold by immunofluorescence labelling

The microenvironment is important in tumor development. Direct labelling of cancer cells in culture with fluorescently labelled antibodies enables the structure of the microenvironment to be assessed.

MATERIALS & METHODS

Materials required:

- Cells grown in BIOMIMESYS® hydroscaffold
- Microenvironment specific antibodies (e.g. Collagen I)
- Hoechst

Matrix characteristics:

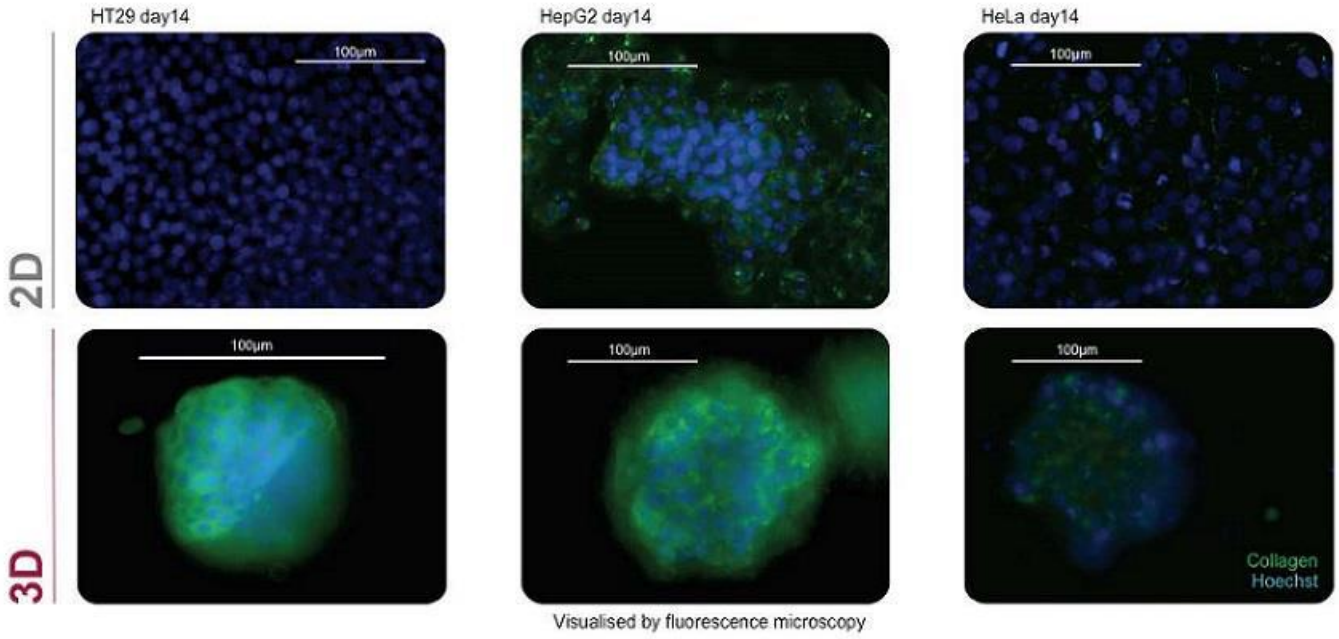
Translucent and porous

Method:

For immunofluorescence detection, cells are fixed and labelled directly in the hydroscaffold with specific antibodies.

RESULTS

Labeling of the cellular microenvironment demonstrates a significant reorganization in 3D compared with 2D cell culture.



Visualised by fluorescence microscopy

After the 14th day of growth there is significantly more collagen type I (in green) produced in cells grown in 3D for the three cell types tested.

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