

Development of an instrumented microfluidic platform for studying glioma cell adhesion and migration on a 3D fibers scaffold mimicking the neural topography

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Town, Country: Villeneuve d'Ascq Cedex, France

CNRS institute of interest:

Funding source:

Collaborators in the project or consortium : Institut Européen des Membranes David CORN

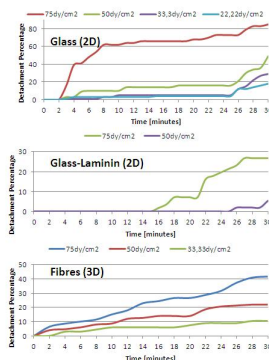


BTR thematics : Micro-nano for bio

Starting date: 2014-04-01

Project objectives : - This project has two main objectives: 1) Microfluidic shear force generator for positioning a single cell in a microfluidic channel and exposing it to controlled shear forces. 2) Integration of an axon like structure integration in collaboration with IEMN in Montpellier (use of electrospinning process) to mimic the in-vivo conditions.

Results : - Fabricated microfluidic devices.- Designed and developed microfluidic systems to studying cancer cell adhesion and migration.- Integrating nano-fibres structure 3D to mimic the in-vivo conditions.



Dynamics of cell detachment to different substrates

Valorization : - Papers in preparation

Technological work conducted in the rena tech network : Integration, Characterization / metrology, Etching, Deposition, Lithography