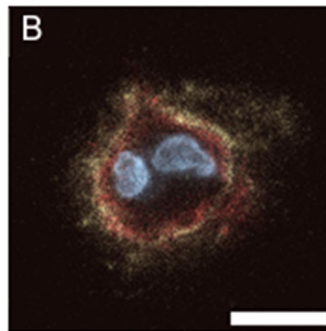


## Master assignment

### Studying cell behaviour at the single cell level in responds to changes in mechanical properties

While effects of stiffness on cell behavior have been extensively investigated, only few studies have looked into the effect of viscoelastic parameters, such as stress relaxation. Notably, it was recently shown that the viscoelastic properties of a hydrogel can be determining for cell behavior. Hence, this project aims to study cell behavior inside engineering 3D microniches with distinct viscoelastic properties, mimicking those of natural tissue. Working with engineering microniches, makes it possible to obtain single cell data.



*Matrix deposition (yellow) of encapsulated cell.*

### Techniques/methods applied in the project:

In this project, you will gain expertise in cell culture, fluorescent immunostaining, various types of microscopy (confocal and/or holotomography), cell culture assays and/or live-cell stainings. Depending on personal preferences, you will can also learn how to perform single cell encapsulations and image analysis.

### Supervision

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