

### Culturing cells in a mechanically active environment to mimic *in vivo* conditions

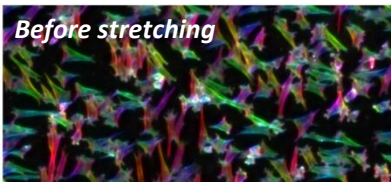
#### Topics

- Cell and tissues mechanical response
- Cell adhesion
- Dermal cohesion
- Cell differentiation
- Skin aging

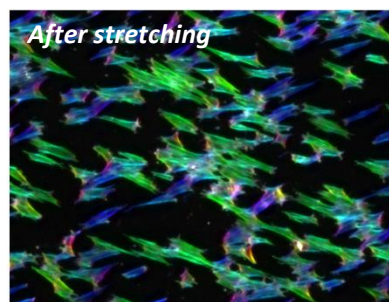


#### Services

- Expertise in cell imaging and image processing to characterize short and long term changes in:
  - Cell monolayer organization
  - Cell morphology
  - Cytoskeleton structure
  - Cell-Cell or Cell-Matrix adhesion
  - Protein aggregation
- Partnership with several laboratory services to quantify
  - Gene expression
  - Rate and amount of protein synthesis
  - Protein secretion or degradation

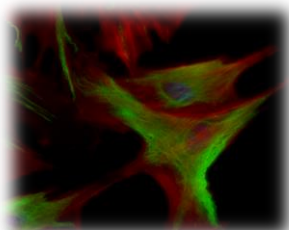
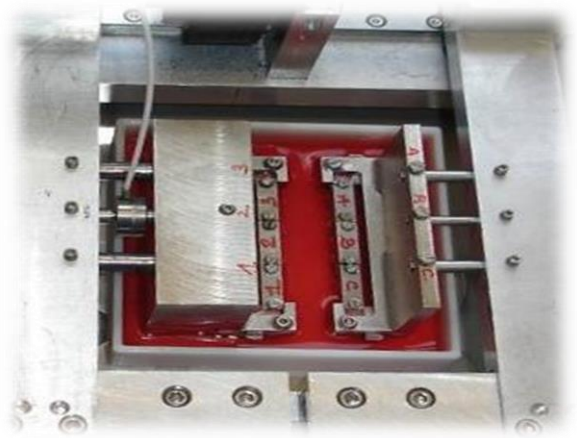


Dynamic orientation of cells during cyclic stretching



#### Technical devices

- In-house and commercial mechanical devices to offer a broad range of mechanical stress
  - Stretching or compression
  - Static, incremental, cyclic
  - Large range of deformation
  - Single and multiple parallel test
  - Variety of flexible membranes with cell adhesive patterns
- Coupling with other stresses
  - Temperature
  - Oxydative stress
  - UVA-UVB radiation



#### R & D

- Test of active ingredients
- Custom assays
- Development of mechanical device adapted to a specific application