

■ Looking to assess skin quality?

Looking for a deeper understanding of human skin?

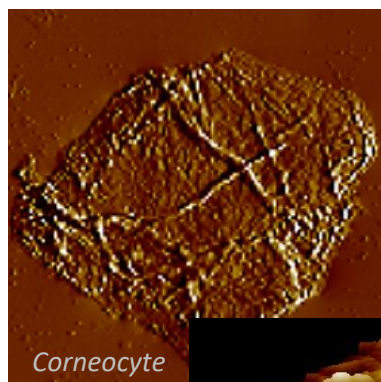
## DermaMeca

Our solution for  
dermatology and dermo-  
cosmetic research

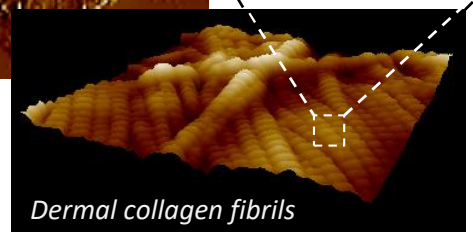
The human skin is composed of several layers, each with a unique structure and function. Understanding the mechanical behavior of these skin layers is important for clinical and cosmetic research, e.g. for the development of personal care products and the understanding of skin conditions.

You want to characterize your sample, to assess therapeutic efficacy or to assess the effect of cosmetic active ingredients...? We have the expertise!

BioMeca makes its expertise in biomechanics available by providing access to innovative analytical methods in skin biology so as to meet the needs of clinicians and manufacturers through the assessment of skin quality, the study of external factors (microbiota, pathogens, pollutants, etc.) and the objectification of the effects of therapeutic molecules and cosmetic active ingredients.

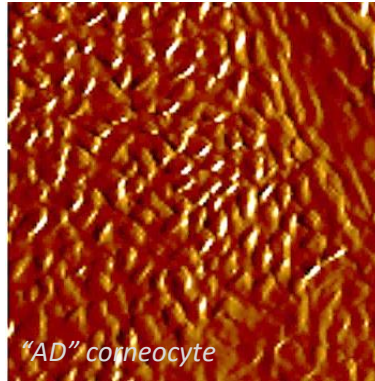
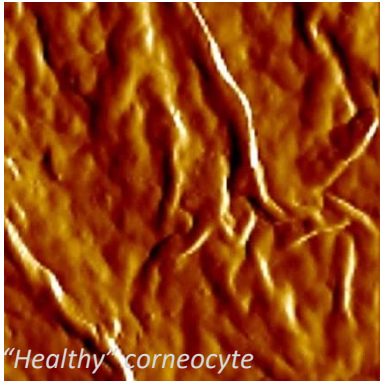


*Corneocyte*



*Dermal collagen fibrils*

# Our Solutions

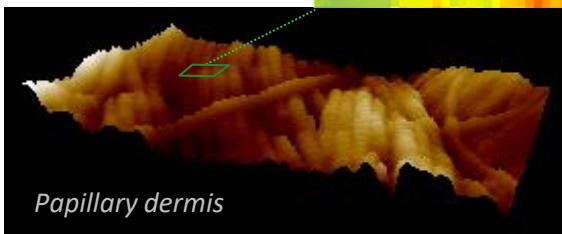
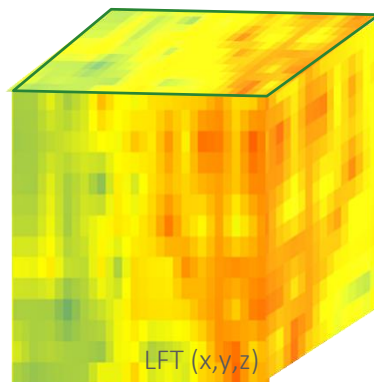


## Surface morphology

BioMeca provides access to Atomic Force Microscopy (AFM) technology for the nanostructural characterization of your materials. We routinely perform high-resolution surface imaging.

## Cytomechanics

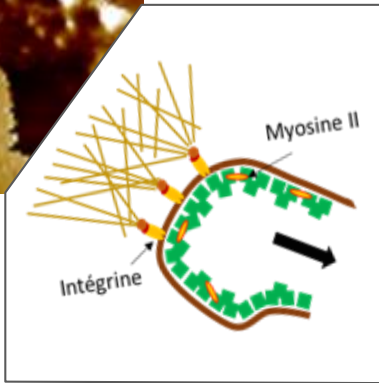
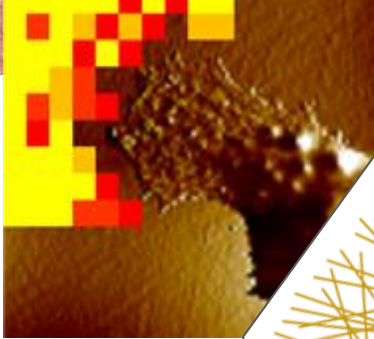
& live force tomography



Atomic force microscopy is a powerful technology that allows the investigation and the mapping of the surface mechanical parameters of your products (stiffness, adhesion, visco-elasticity...). Our powerful approach "Live force tomography" (LFT) provides 3D characterization of samples for a deeper evaluation of the skin.



*Fibroblast on a collagen lattice*

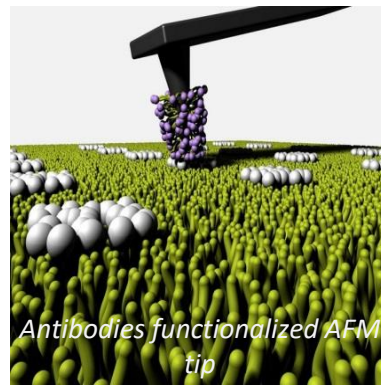


## Strain stiffening imaging

Our innovative MecaBond solution offers a unique opportunity to observe the mechanical evolution of extracellular matrices under the influence of forces exerted (traction, migration ...) by cells and tissues...

## Molecular recognition mapping

The specific coating of the AFM tip by antibodies or chemical molecules, its capability to resolve nanometer-sized details and its force detection sensitivity allow us to localize specific components in your samples with nanometer accuracy.



*Antibodies functionalized AFM tip*

All our solutions can be adapted to various models (cells, sections, reconstituted tissues...) under different conditions (quasi-physiological, drug introduction...).



Our other  ffers:

- qTEN: quantitative Tandem Epifluorescence and Nanoindentation
- Correlative Microscopy: AFM/confocal microscopy
- Structural investigation of single molecules (protein unfolding, DNA imaging...)
- Cell-cell and cell-matrix interaction forces measurement
- ...

If you have special requests, just ask us! Our team is always searching for new solutions so as to offer you services tailored to your needs.

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