

UNDERSKIN

✦ A device for measuring the cutaneous tension



REFERENCE

UNDERSKIN [D02301]

KEYWORDS

MEDICAL DEVICE / COLLAGEN
DERMATOLOGY / COSMETICS



APPLICATIONS

- Cosmetology: efficacy tests, effect and evolution of cosmetic products, validation of the quality of reconstructed skins, clinical trials
- Medical: help in diagnosis and monitoring of dermatological diseases, skin mapping for surgery



TARGET MARKETS

- Service companies, manufacturers of R&D / quality equipments
- Medical device

Technology readiness level

✦ TRL 5 ✦ TRL 7 in 2021



INTELLECTUAL PROPERTY

Patent FR N°2011409



RESEARCH TEAM

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DESCRIPTION

This device allows to measure the natural mechanical tension of a cutaneous tissue, on the surface and in depth. This measurement can be carried out *in vivo* on a healthy or sick individual, and *in vitro* on tissues obtained from biopsies or made by bio-printing. It is non-invasive, reliable and reproducible. It provides a map of mechanical properties as a function of the depth of the skin. It is in particular possible to visualize in the skin sub-layers, the effect of aging, the effect of a cream or even the state of tension of stretch marks. In addition, this device also makes it possible to ensure the monitoring of a scar, or to help in the diagnosis of pathologies due to a failure of the collagen fibers network (Ehlers-Danlos, Cutis-Laxa, scleroderma, ...)

COMPETITIVE ADVANTAGES

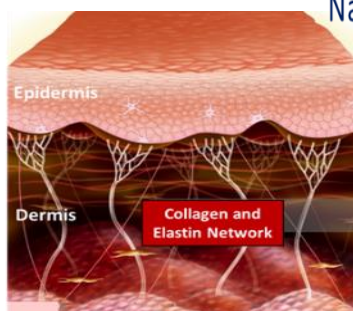
- Non invasive and without contact measurement
- Easy use device
- Multiple applications

DEVELOPMENT STATUS

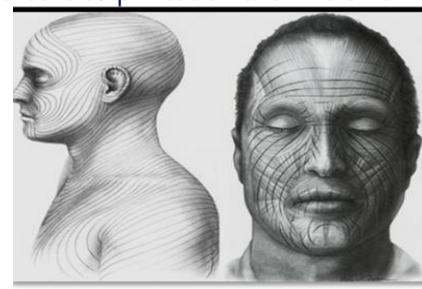
- A first functional prototype has been validated for in-depth mapping tests
- An improvement of the visualization of a in-depth 3D image is in progress
- Optimization of the use of the device is in progress

PARTNERSHIP

Pulsalys is looking for a company wishing to put this product on the market



Natural tension printed on the whole human body



OUR OPPORTUNITIES

<https://www.pulsalys.fr/our-projects/>

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