IN VITRO & EX VIVO **TESTING**

stratiCELL
Testing & Beyond

Solar Lentigines

In vitro testing for hyperpigmented age spots

Solar lentigines also referred as “age spots”, are hyperpigmented lesions that are located predominantly on the sun-exposed areas of the skin. Even though highly associated with photo-ageing in elderly people, hyperpigmented lesions can results from other environmental causes.

StratiCELL has developed an *in vitro* 3D model of melanized reconstructed epidermis that replicates main features of solar lentigines. The specific culture condition based on a unique cocktail of promelanogenic factors induces hyper-pigmentation and –proliferation of the epidermis. Combined to pigmentation assays, this model is ideally suited to objectivate depigmenting effects of dermo-cosmetic raw active ingredients and final skin care products.

3D models

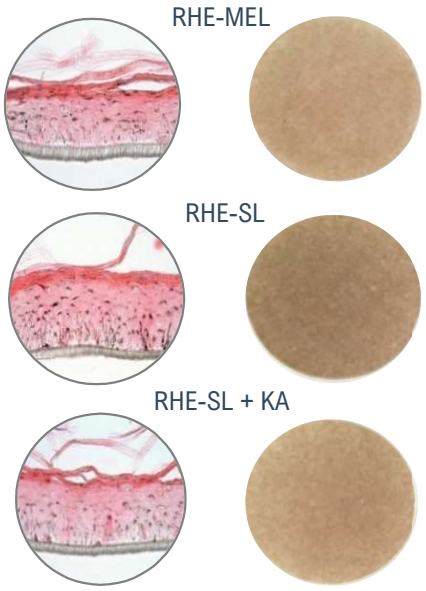
RHE-SL: **R**econstructed **H**uman **E**pidermis upon stimulation with a cocktail of fibroblast-derived melanogenic factors to replicate **S**olar **L**entigines features.
RHE-SL-SPOTS : **R**econstructed **H**uman **E**pidermis with individualized age **spots** upon stimulation with a cocktail of fibroblast-derived melanogenic factors.

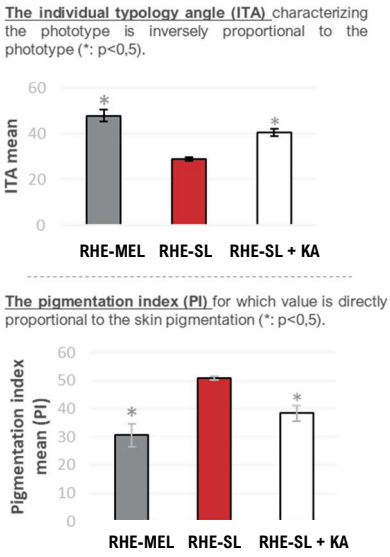
Positive Reference

- Kojic acid (KA)

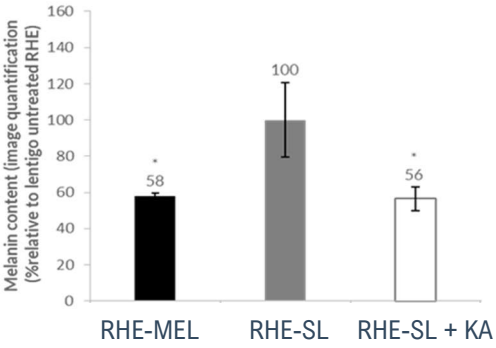
Testing Methods

1. Tissues morphology by **Hemalun/Eosin staining**, and pigmentation by **dermoscopy images** : high-resolution macroscopic pictures and calculation of the Individual Typology Angle (ITA), the Pigmentation Index (PI).

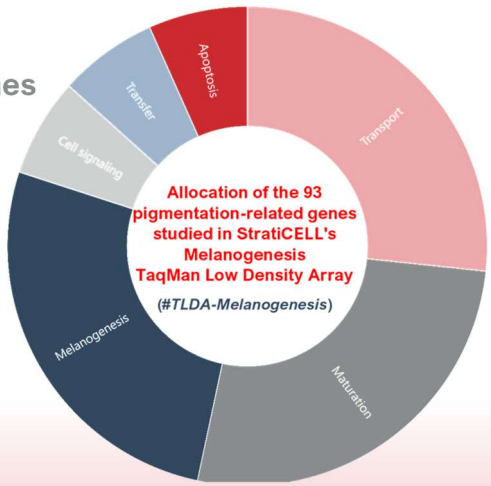




2. Melanin content by colorimetry after Solvable® solubilization, or based on Fontana-Masson images.



3. Expression of genes playing key roles in pigmentation, by RT-qPCR: individual TaqMan probes or 93 genes TaqMan Low-Density Array (TLDA).



4. RHE-SL-SPOTS showing individual age spots by dermoscopy images.