

Epidermis Model for Drug Discovery



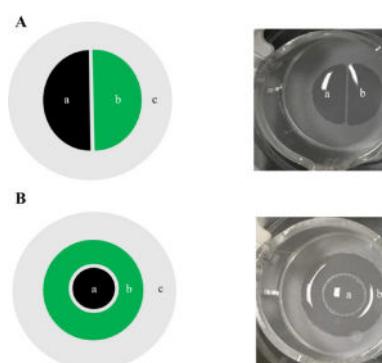
L'ORÉAL

Madiedo-Podvrsan S, Belaïdi JP, Desbouis S, Simonetti L, Ben-Khalifa Y, Collin-Djangone C, Soeur J, Rielland M. Utilization of patterned bioprinting for heterogeneous and physiologically representative reconstructed epidermal skin models. *Sci Rep.* 2021 Sep 1;11(1):17760. doi: 10.1038/s41598-021-97269-5.

Overview

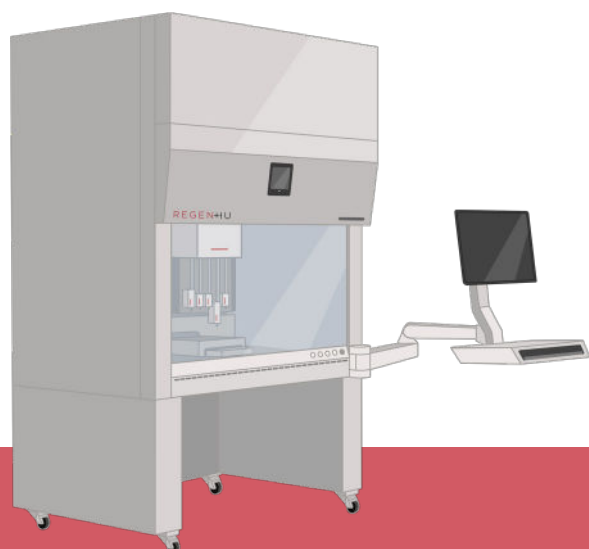
Skin tissue models are widely used in the pharmaceutical and cosmetic industries; however, they fail to recapitulate the heterogeneity and variability of native tissue, resulting in limited predictability. Accurately modeling the physiology and the physiopathology of human skin to recreate native conditions would be highly beneficial; however, conventional culture methods are still imprecise when depositing multiple cell types.

In this study, researchers created models of different skin phenotypes by patterning multiple keratinocyte subpopulations, to mimic the edge of lesions.



Results

- ✓ Well-organized epidermal structure with phenotypic characteristics of its constituent cells
- ✓ Reduced sample size by testing a compound on the dual populations simultaneously



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