

EX VIVO & IN VITRO PERMEATION & EFFICACY STUDIES WITH DYNAMIC TISSUE MODELS

NEXT GENERATION  
**4D HUMAN TISSUE**  
RECONSTRUCTED SKIN MODELS IN MICROFLUIDICS



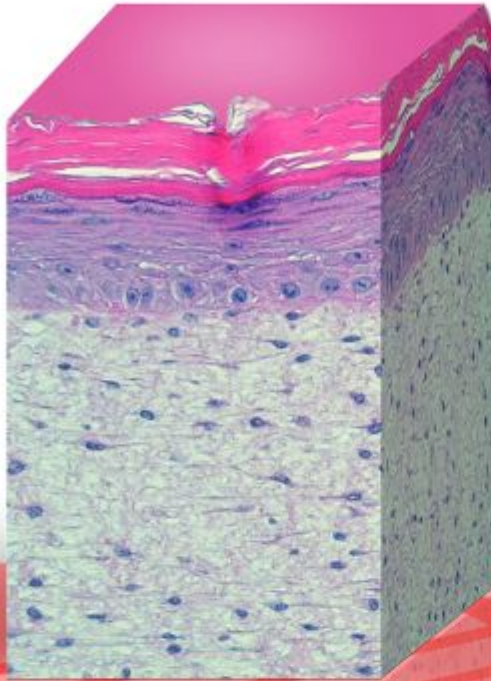
**ALTERNATIVE TO ANIMAL TESTINGS**  
NO ANIMAL  
COLLAGEN & SERUM

**MIMICKING BLOOD FLOW**  
IN VIVO-LIKE  
CONDITIONS

**MECHANISTIC, SAFETY, EFFICACY & PERMEATION STUDIES**  
FOR STRONGER CLAIMS  
DIFFERENTIATION

**COMMERCIAL STRATEGY & EXECUTION**  
FIND ADAPTED SOLUTIONS  
WITH EXPERTS





## REVskin™

is a proprietary full thickness, skin-on-chip equivalent with a realistic morphology, enhanced differentiation and barrier function.

### DYNAMIC MEDIUM

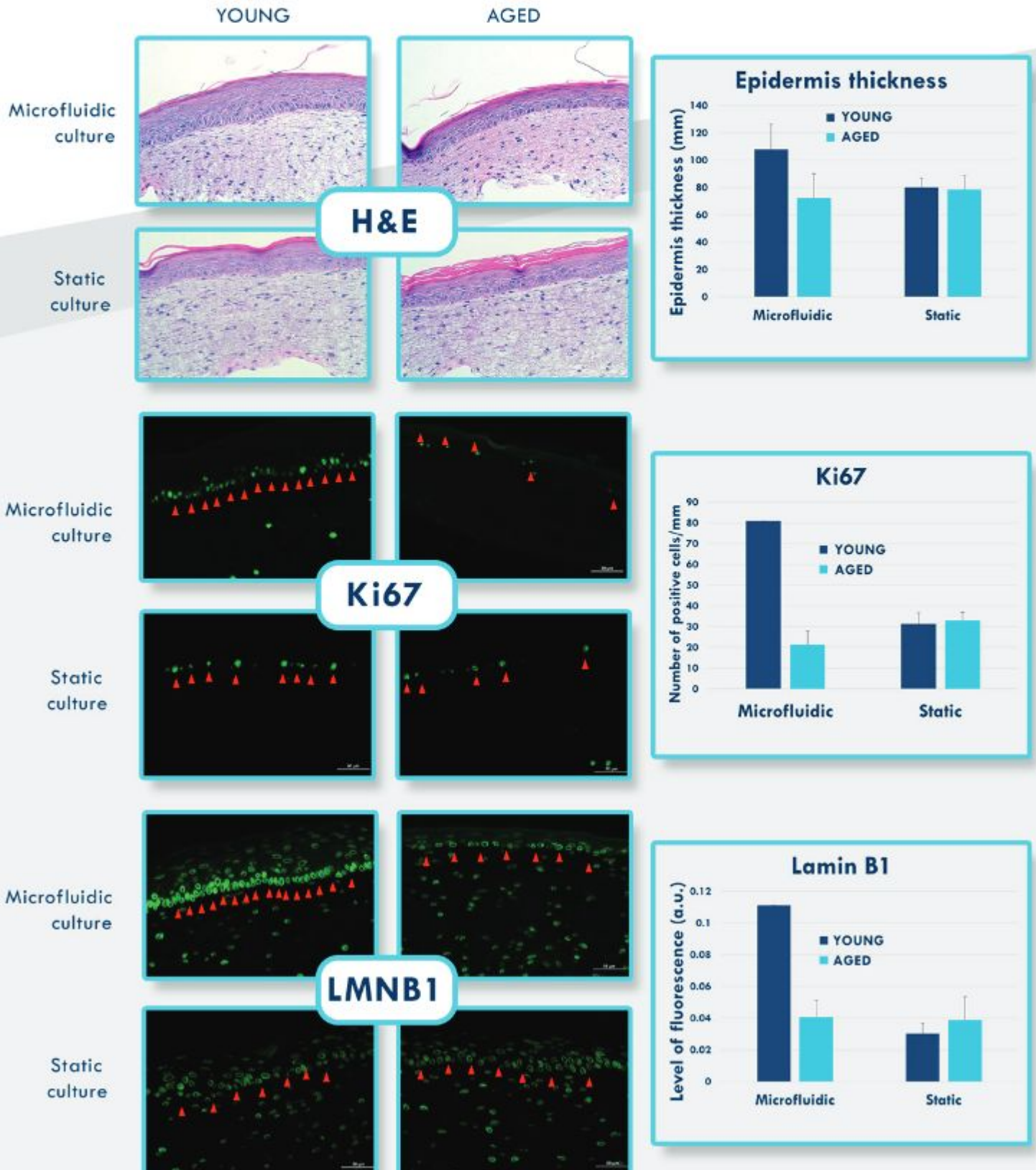
- Full thickness reconstructed skin models
- Realistic alternative to animal testing
- Cultured from human primary cells only
- Non-contracting fibrin-based dermal matrix
- 100% of collagen in REVskin™ is produced by resident human fibroblasts (does not contain animal collagen)

# Chronological Ageing

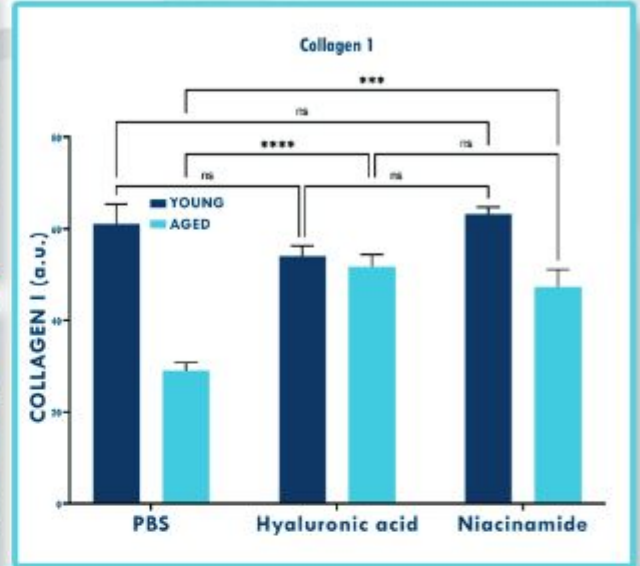
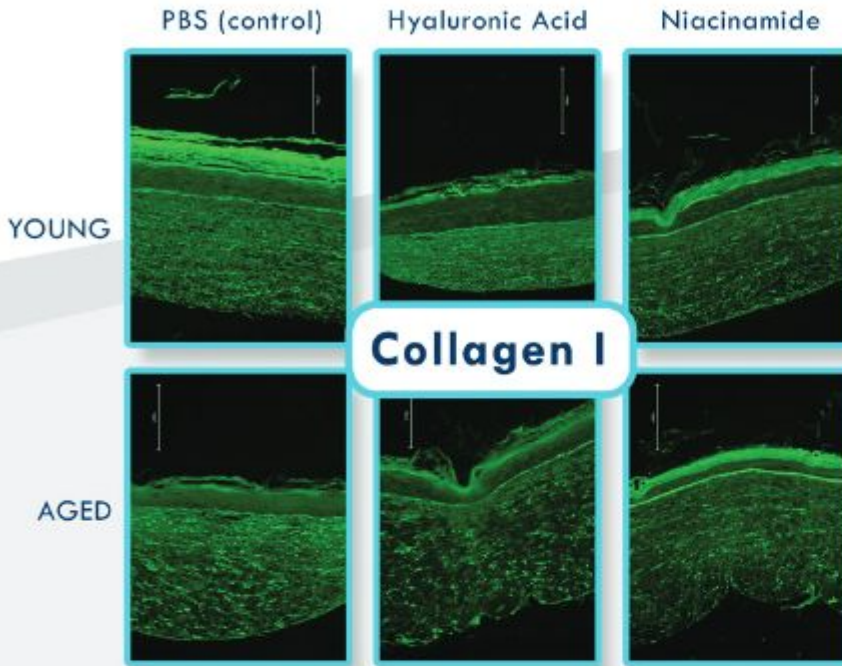
## > Model

We pioneer a non-oxidative approach to modeling skin aging *in vitro*, using our in-house cultivated REVskin™ and a specialized aging stimulator cocktail. One of the key aspects that our chronological aging model can effectively evaluate is the morphological change of the dermis and epidermis.

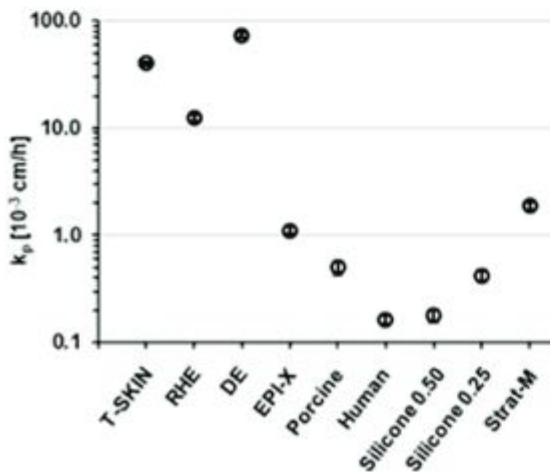
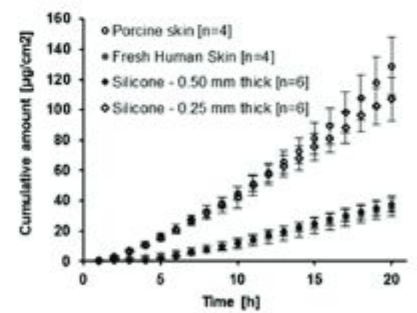
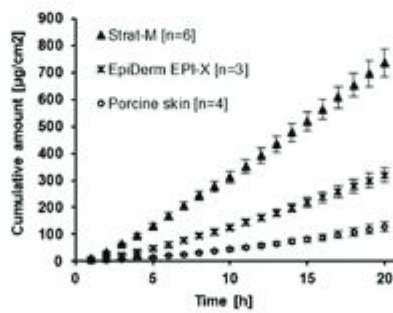
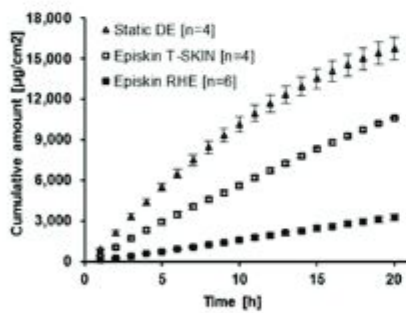
### EFFECTS ON EPIDERMIS



## EFFECTS ON DERMIS



## Ex vivo & in vitro permeation studies



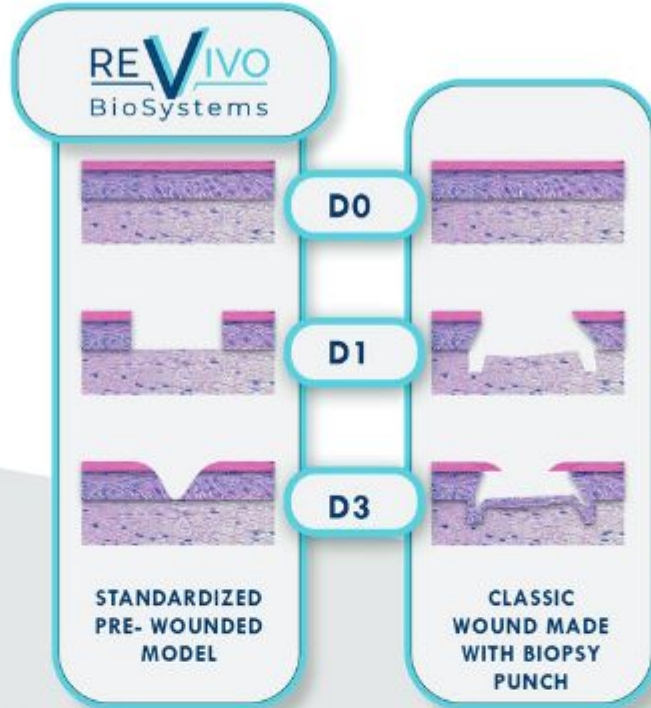
### > Model

Automated permeation assays can be conducted using skin equivalents, real human skin explants and synthetic membranes. Infinite or finite dose can be used.

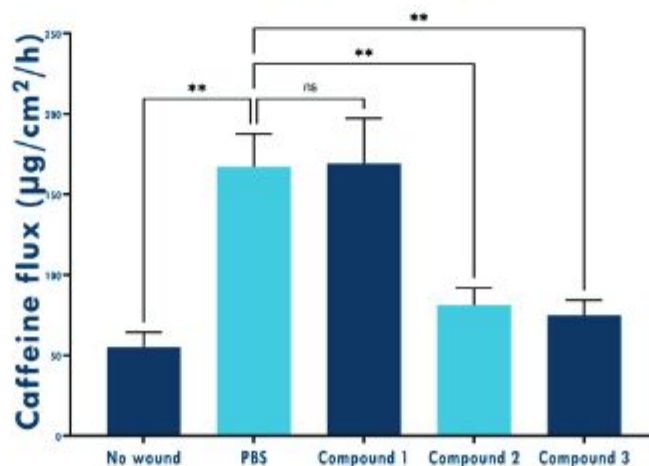
## Standardized pre-wounded skin model

### > Advantage

Our standardized pre-wounded skin model allows you to compare the rate of healing between different treatments. Effects of healing are assessed by caffeine permeation assays after the healing period of the positive control. Secreted markers in the medium can be collected at different time points and analyzed.



Caffeine permeation after 5 days of healing



# TEST SERVICES AVAILABLE

## PERMEATION

Transdermal delivery studies

*In vitro* skin absorption (OECD 428)

*In vitro* release testing (IVRT)

## EFFICACY TESTS FOR PRODUCT MARKETING CLAIMS

Anti-aging (UV, H<sub>2</sub>O<sub>2</sub>, Chronological Ageing)

Wound healing

Anti-pollution, exposomes

Anti-pigmentation

Integrity of skin barrier

## SAFETY (3D)

Skin irritation (OECD TG 439)

Skin corrosion (OECD TG 431)

Skin phototoxicity (OECD TG 498)

## EFFECTS OF DEVICES

Biological evaluation of wound healing patches,  
cosmetic & healthcare devices

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