

Development of a new photoprotective repairing cream using an ecobiological approach_

Helena Polena, PharmD, PhD
Clinical Project Manager

IMCAS
WORLD CONGRESS
FEBRUARY 1 TO 3, 2024

25th ANNIVERSARY

WWW.IMCAS.COM

Conflict of interest:



N A O S



What is an optimal post-procedure repairing care?

- Help wound healing
- Reduce discomfort sensations
- Prevent sun-induced pigmented marks
- Suitable for daily life

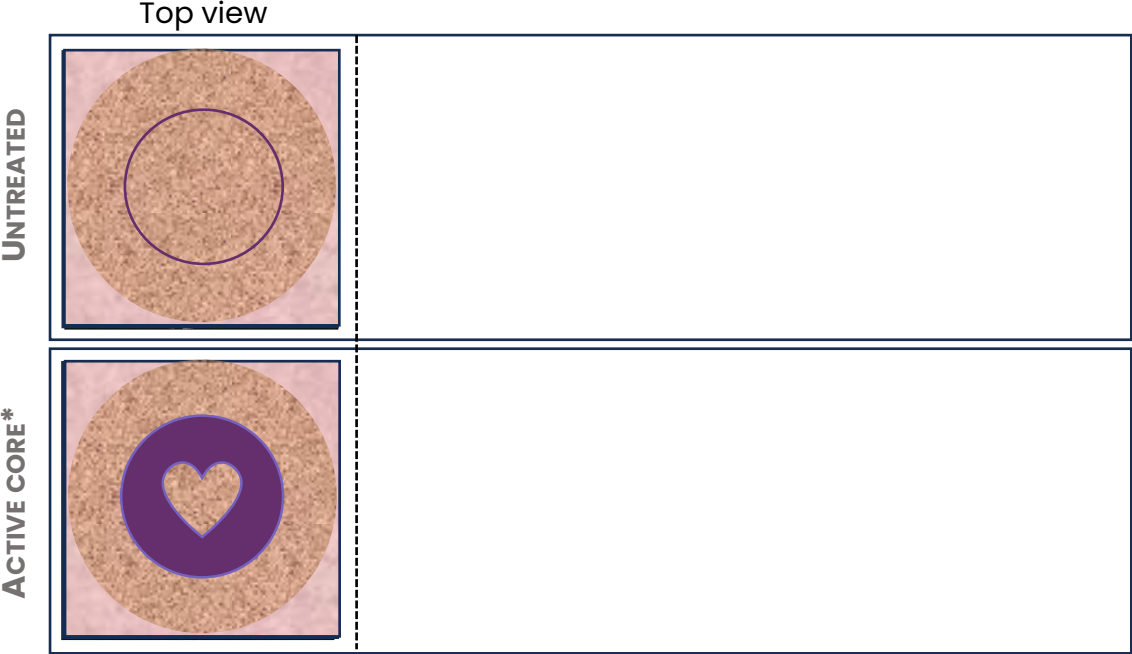
**The skin as an
ever-evolving
ecosystem**



**NEW REPAIRING CREAM
WITH PHOTOPROTECTION**

#1 In vitro evaluation of the repairing efficacy

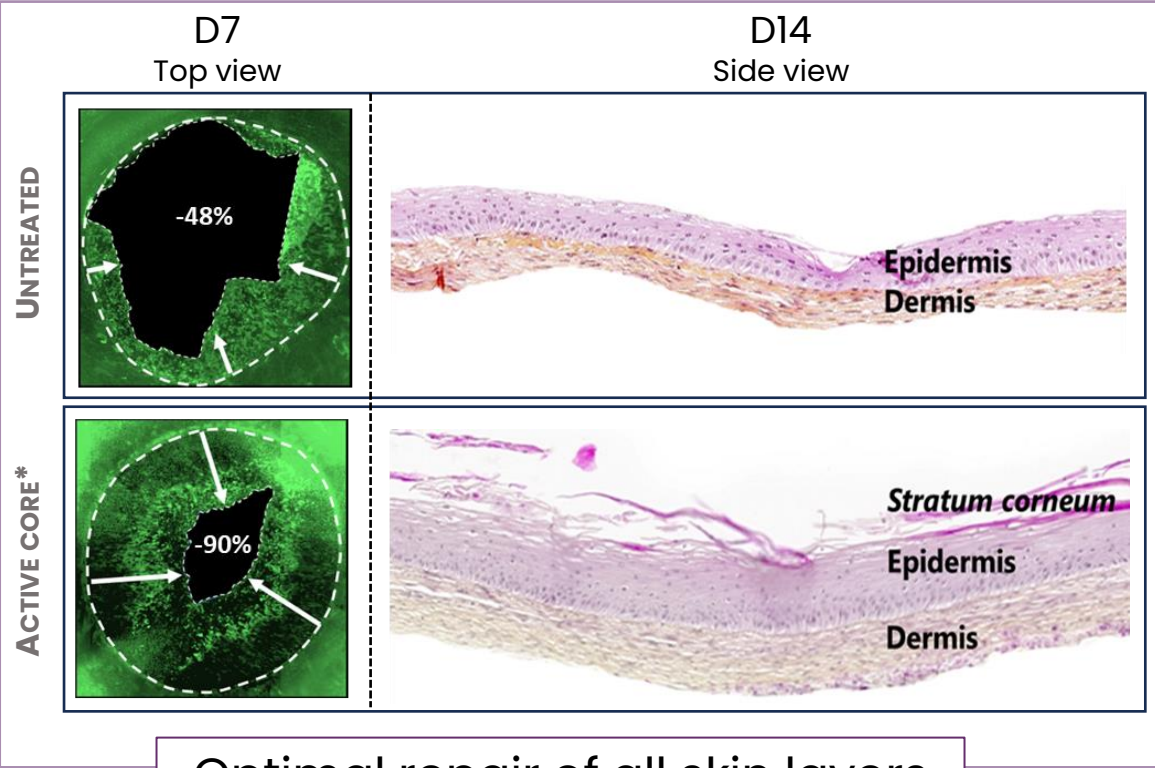
3D wounded skin model | topical application of the active core vs. vehicle once daily for 14 days after a circular hole formation



*patent pending

#1 In vitro evaluation of the repairing efficacy

3D wounded skin model | topical application of the active core vs. veicule once daily for 14 days after a circular hole formation



Optimal repair of all skin layers

*patent pending

#2 instrumental evaluations of the texture properties

Intra-individual | 10 to 20 subjects |
from 19 to 70 years old | dry or
moderately hydrated skin | single
application vs. untreated area

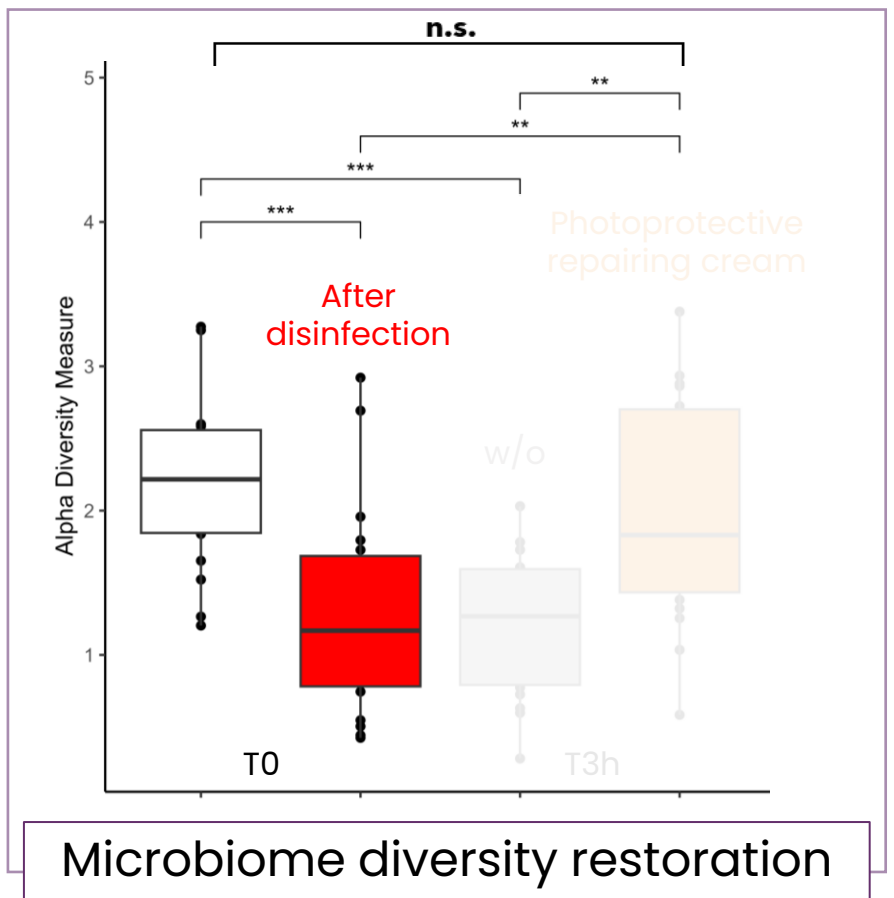
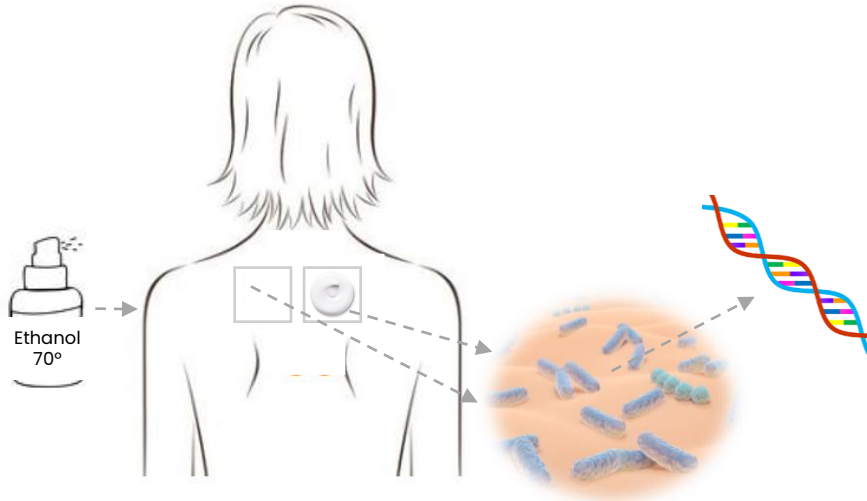


- Moisturising effect (**+40%***** 1h to **+19%***** 8h)
- Bioadhesive effect (**-21%***** of TEWL after blotting paper)
- Anti-friction effect (**-8%***** of TEWL after rubbing)
- Breathing effect (no variation $TcPO_2/TcPCO_2$)

Breathable dressing-like effect

#3 Clinical study on cutaneous microbiome diversity

Intra-individual | 20 healthy women | 23 to 50 years old | Skin microbiome samplings | DNA extraction, 16S rRNA gene (V3-V4) amplification and metagenomic analysis

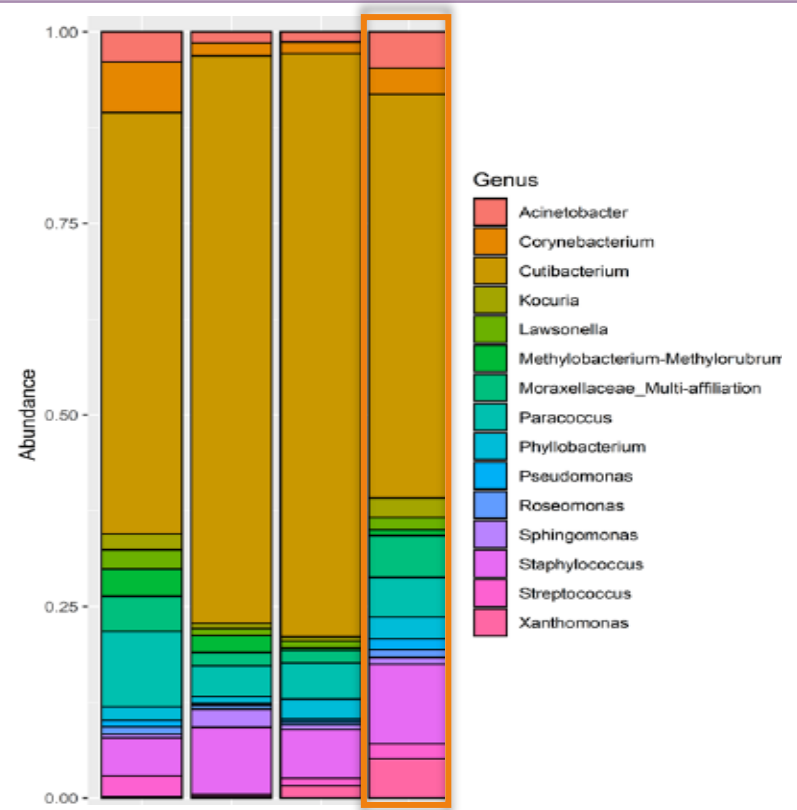
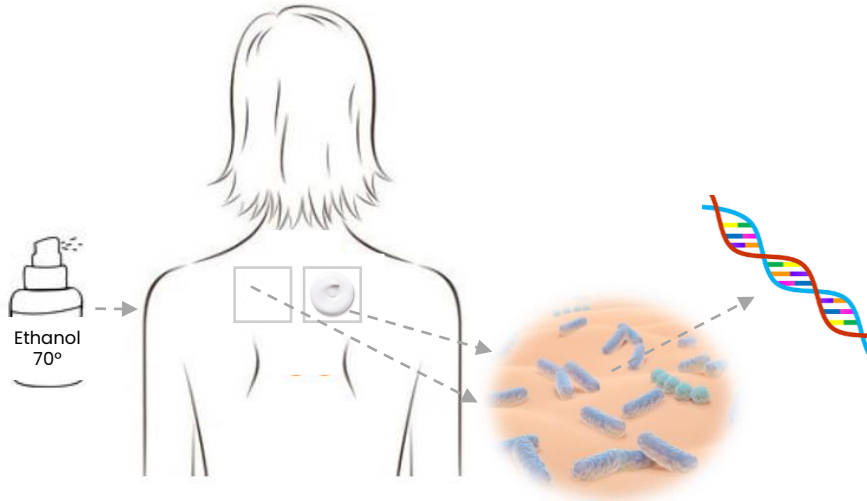


Microbiome diversity restoration

n.s. non significance, * $p < 0.05$, *** $p < 0.01$, ** $p < 0.001$, Wilconxon test

#3 Clinical study on cutaneous microbiome diversity

Intra-individual | 20 healthy women | 23 to 50 years old | Skin microbiome samplings | DNA extraction, 16S rRNA gene (V3-V4) amplification and metagenomic analysis



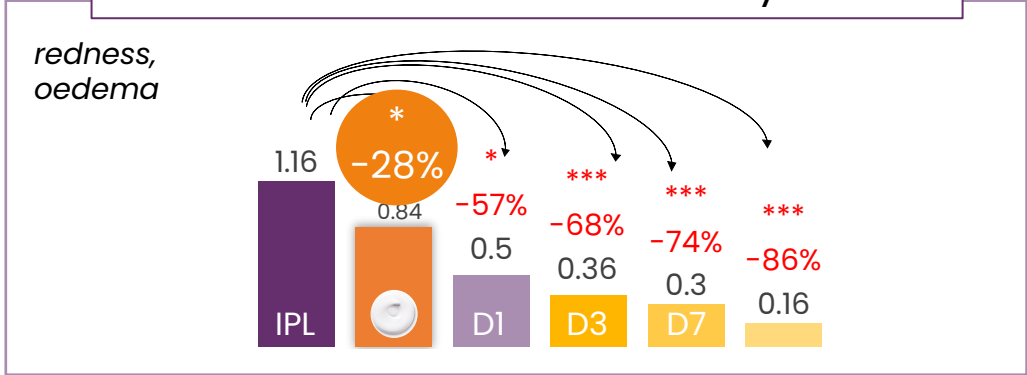
Microbiome diversity restoration

#4 Clinical evaluation in post non-ablative resurfacing technique

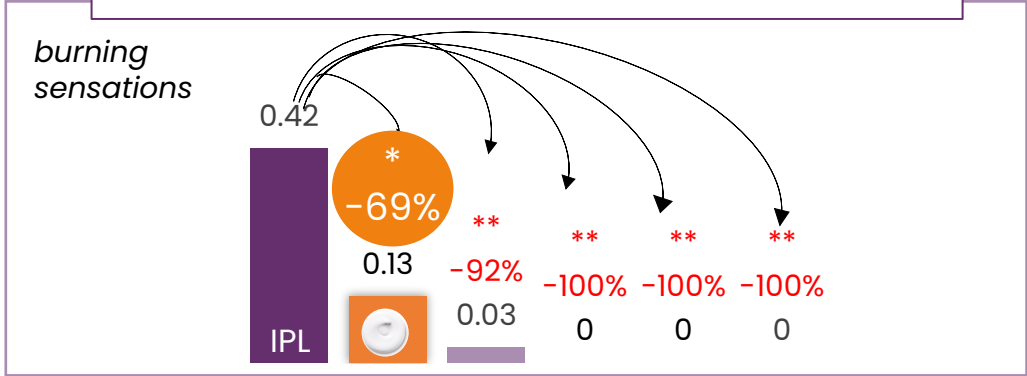
Intense pulsed light (IPL) | 31 healthy subjects that tend to hyperepigmented | 23 to 50 years old | Twice daily application for 14 days



Immediate anti-inflammatory effect



Immediate cutaneous comfort



*p<0.05, **p<0.01, ***p<0.001, Wilconxon test

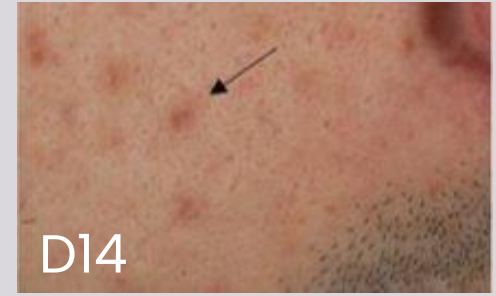
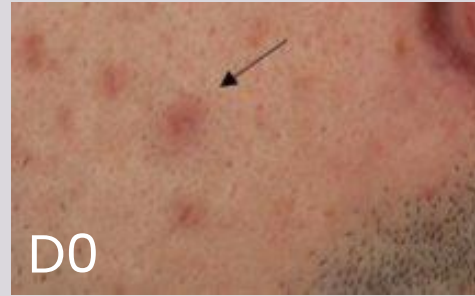
#4 Clinical evaluation in post non-ablative resurfacing technique

Intense pulsed light (IPL) | 31 healthy subjects that tend to hyperpigmented | 23 to 50 years old | Twice daily application for 14 days



PIH prevention and improvement

Total surface (pixel) **-46%**** and clinical scoring **-22%**** vs baseline

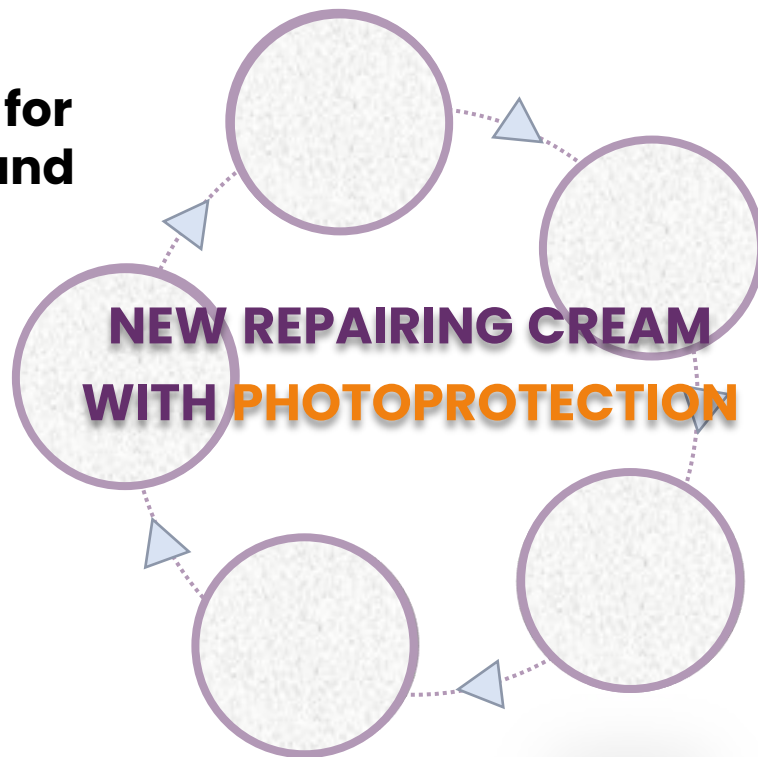


Very good tolerance

suitable for post-aesthetic procedure

p<0.05, **p<0.01, *p<0.001, Wilconxon test*

Ecobiological tools for supporting the wound healing





 N A O S

BIODERMA
LABORATOIRE DERMATOLOGIQUE

INSTITUT
ESTHEDERM
PARIS

état pur