

DIETARY SUPPLEMENTS | ACTIVE INGREDIENT

# Ceramosides™

Youthful skin &  
stronger hair  
from within

FAST ACTING & LOW DOSE  
WHEAT PHYTOCERAMIDES

**seppic**  
SCIENCE THAT CARES





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# Ceramosides™ story

**SEPPIC**

11028 Ceramosides™ commercial  
presentation GB V1

April 16, 2024

Ceramosides™ story

# Pioneer of phytoceramides' science

In 2006, in the North East of France, **inspired by disruptive scientific data published** on the benefits of **oral administration** of ceramides on skin hydration, Seppic decided to develop a unique nutritional active ingredient rich in vegetal ceramides: **Ceramosides™**.

Resulting from **several years of research**, Ceramosides™ is the **1<sup>st</sup> phytoceramides** on the market with **proven efficacy** on skin hydration and anti-aging **at very low dose**.

Known primarily as a hero ingredient in nutraceuticals formulations that are targeting **skin ageing and moisturization**, CERAMOSIDES™ efficacy on **hair growth and strength** has now been clinically demonstrated.





# A powerful source of phytoceramides

**CERAMOSIDES™** is a natural gluten-free **wheat lipidic extract**.



<i><b>Phytoceramides</b></i>	▶ Highly concentrated source of phytoceramides from wheat
<i><b>DGDG digalactosyl diglycerides</b></i>	▶ A self-emulsifying compound naturally found in wheat

*DGDG improves ceramides' metabolism and absorption.*

*Triglycerids  
Phospholipids*

**Synergistic complex**  
enhanced benefits on the skin



*Ceramides are lipids naturally present in wheat grains (1-2% of the grain composition). Thanks to a specific extraction method, Seppic is able to manufacture a unique synergistic complex of wheat lipids.*



# A responsible extraction process



## Traceable wheat origin

EU origin  
*Triticum vulgare* species  
(syn. *Triticum aestivum*)



## Low water consumption

No water consumption  
in process  
Best-in-class cleaning  
technology with very  
reduced water use



## Recycling

Target 100% solvents  
recycled  
Only 1 waste reusable for  
energy



## Upcycling

Main by-product  
valorised in animal feed

# Premium characteristics



GRADE	CERAMOSIDES™ POWDER NEUTRA	CERAMOSIDES™ OIL NEUTRA																								
Aspect	Beige water-dispersible powder	Light brown oil																								
Recommended dose	30 mg/day	70 mg/day																								
Composition (%)	<table border="0"> <tr> <td>Phytoceramides</td> <td><div style="width: 50%;"></div></td> <td>50%</td> </tr> <tr> <td>DGDG</td> <td><div style="width: 40%;"></div></td> <td>40%</td> </tr> <tr> <td>Triglycerids</td> <td><div style="width: 0-5%;"></div></td> <td>0-5%</td> </tr> <tr> <td>Phospholipids</td> <td><div style="width: 5-10%;"></div></td> <td>5-10%</td> </tr> </table>	Phytoceramides	<div style="width: 50%;"></div>	50%	DGDG	<div style="width: 40%;"></div>	40%	Triglycerids	<div style="width: 0-5%;"></div>	0-5%	Phospholipids	<div style="width: 5-10%;"></div>	5-10%	<table border="0"> <tr> <td>Phytoceramides</td> <td><div style="width: 15%;"></div></td> <td>15%</td> </tr> <tr> <td>DGDG</td> <td><div style="width: 15%;"></div></td> <td>15%</td> </tr> <tr> <td>Triglycerids</td> <td><div style="width: 60%;"></div></td> <td>60%</td> </tr> <tr> <td>Phospholipids</td> <td><div style="width: 10%;"></div></td> <td>10%</td> </tr> </table>	Phytoceramides	<div style="width: 15%;"></div>	15%	DGDG	<div style="width: 15%;"></div>	15%	Triglycerids	<div style="width: 60%;"></div>	60%	Phospholipids	<div style="width: 10%;"></div>	10%
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Triglycerids	<div style="width: 60%;"></div>	60%																								
Phospholipids	<div style="width: 10%;"></div>	10%																								
Packaging	Aluminum bags: 1kg and 5kg	PEHD barrels: 5kg																								
Shelf life	2 years Best refrigerated*	3 years																								
Suitable galenics																										
Approvals	HACCP certified                  Kosher certified                  Vegan suitable	Gluten-free*                  GMO-free                  Additive-free, Preservative-free																								



# Ceramides: key components of skin and hair

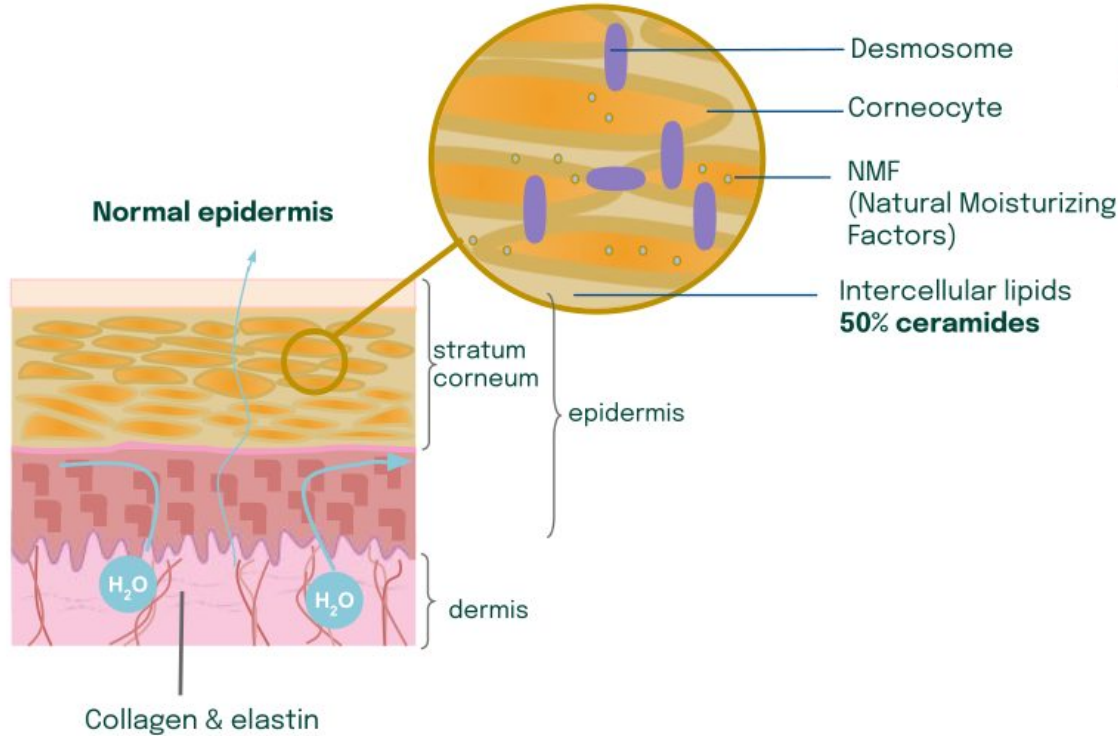
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# Ceramides role in the skin



## Skin hydration

The skin is constituted of three layers: hypodermis, dermis, and **epidermis**.

The epidermis is analogous to a brick wall, with the **corneocytes** acting as the **bricks** and the **lipids as the mortar**, which fill the gaps between the cells.

The major lipids of the skin's stratum corneum are: **ceramides**, cholesterol, and free fatty acids.

This barrier enables the **retention of water** within the corneocytes. As a result they swell up, **preventing the formation of cracks**.

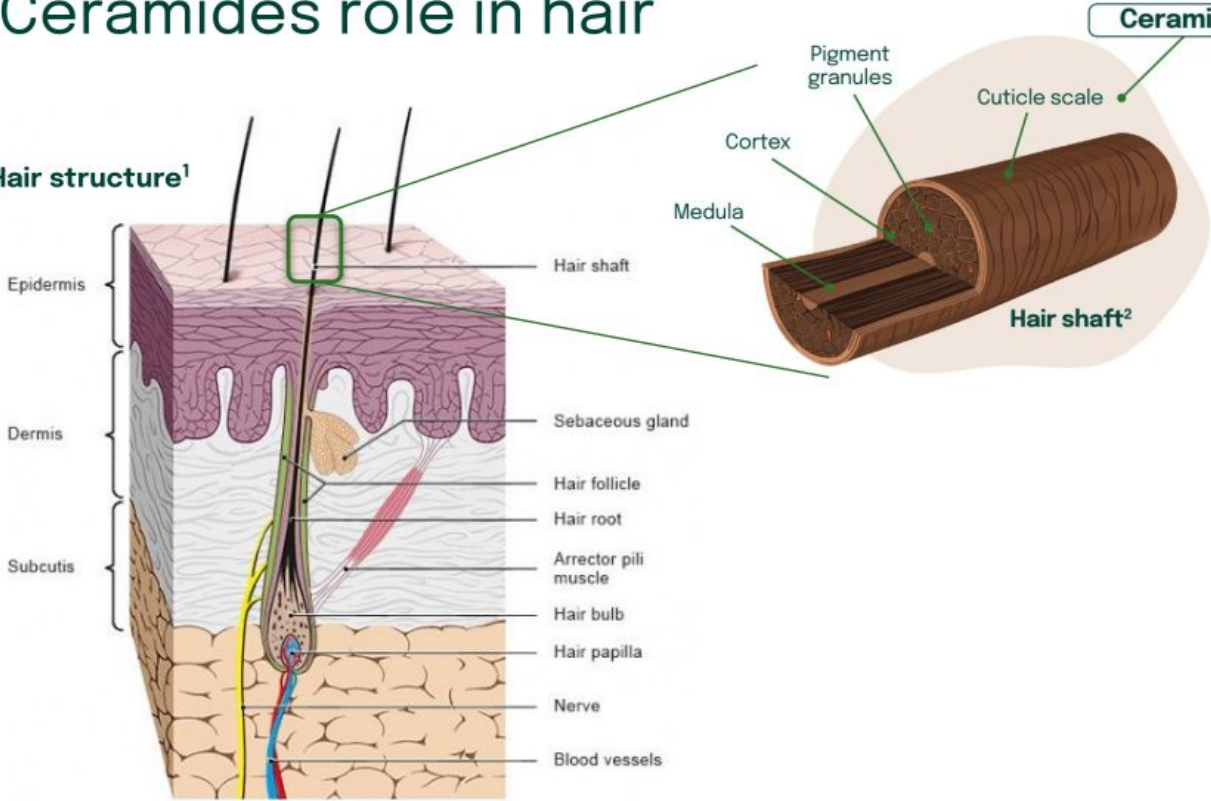
Appendix 1



Ceramides: key components of skin and hair

# Ceramides role in hair

## Hair structure<sup>1</sup>



## Hair strength

**Ceramides** are known for their involvement in the **formation of intracellular lipids**. They act as a **barrier for skin and hair cuticle protection**.<sup>3</sup>

Specifically, they play a critical role in **strengthening the hair** by ensuring the **cohesion of hair cells**, thus, reducing breakage.

Appendix 2 - hair cycle

1. InformedHealth.org. Institute for Quality and Efficiency in Health Care (IQWiG). 2019. 2. A.He & B.S. Fundamentals of Ethnic Hair: The Dermatologist's Perspective. 2017. 3. Oh, J.H. et al. Annals of dermatology. 2019.



# The impact of menopause on skin and hair



## SKIN

The hormonal changes induced by **menopause** have strong repercussions on women's skin, in particular on **ceramides** whose 2 parameters tend to decrease <sup>1</sup>:

Quantity

Quality (length)

Dryness

Water loss

Wrinkles

Cracks



## HAIR

The **decrease** in the levels of **oestrogen** and that occur during **menopause** also have negative repercussions on the hair cycle. Hair menopausal symptoms include <sup>2-4</sup>:

Altered hair quality

Reduced hair growth

Reduced hair density



Ceramosides™

## Youthful skin & stronger hair from within

**Ceramosides™** is a **low-dose, fast-acting** ingredient designed to help consumers feel confident about the beauty of their **skin and hair** from within. It is particularly effective in reducing the appearance of **wrinkles** and improving **skin hydration**. Ceramosides™ also brings a comprehensive response to major **hair concerns**, not only by reducing **hair loss**, but also by stimulating **hair growth** and improving **hair strength**. It is equally suitable for **menopausal women**, who are particularly prone to skin and hair disorders and need targeted support to **unleash their beauty**.



### Efficacy

### MOA

### Skin

- Skin hydration
- Anti-aging

- Anti-collagenase action
- Anti-elastase action
- Anti-radical effect

### Hair

- Hair growth & anti hair loss
- Hair strength
- Scalp sebum reduction
- Hair volume & density improvement



# Ceramosides™ science

-

# Skin

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# Gold standard scientific evidence

2013

## Pilot study

Unpublished

Open trial

20 healthy women with dry skin (MI < 50)

Daily dose:  
Powder Neutra: 20 mg

2017

## Confirmatory RCT

Bizot, V, *et al.* "Improving skin hydration and age-related symptoms by oral administration of wheat glucosylceramides and digalactosyl diglycerides: a human clinical study." *Cosmetics* 4.4 (2017): 37.

Randomized, double-blind, placebo controlled

60 healthy women with dry skin (CI\* <50) and signs of aging  
30-60 yo

Daily dose:  
Powder Neutra: 30 mg  
Oil Neutra: 70 mg

See results



2023

## 2<sup>nd</sup> confirmatory RCT

Kern, C. *et al.* "Dietary supplementation with a wheat polar lipid complex improves skin conditions in women with dry skin and mild-to-moderate skin aging." *Journal of Cosmetic Dermatology*. 2024; 23:1320-1330.

Randomized, double-blind, placebo controlled

72 healthy women with dry skin (CI\* <50) and signs of aging  
30-60 yo

Daily dose:  
Powder Neutra: 30 mg  
Oil Neutra: 70 mg

See results



\*corneometric index



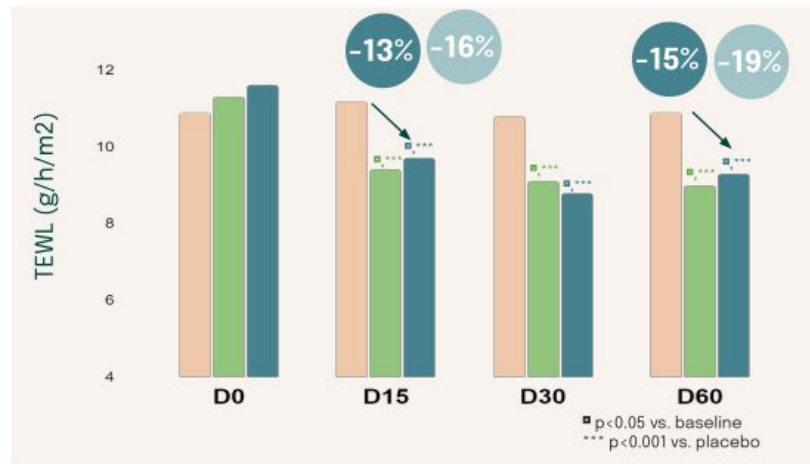
# Quick action on skin hydration



## SKIN MOISTURIZATION



## TRANS-EPIDERMAL WATER LOSS



Placebo

CERAMOSIDES™ oil

CERAMOSIDES™ powder





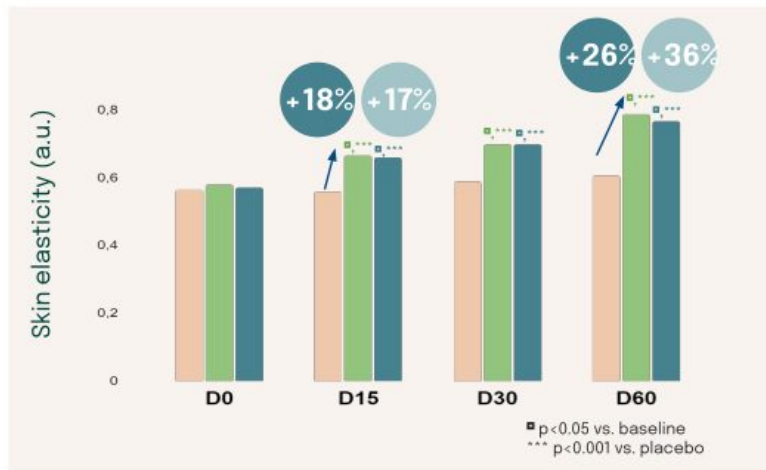
# Quick action on skin aging



## SKIN WRINKLEDNESS



## SKIN ELASTICITY



Placebo

CERAMOSIDES™ oil

CERAMOSIDES™ powder

% var Ceramosides™ oil vs. placebo

% var Ceramosides™ powder vs. placebo

% var Ceramosides™ oil vs. D0

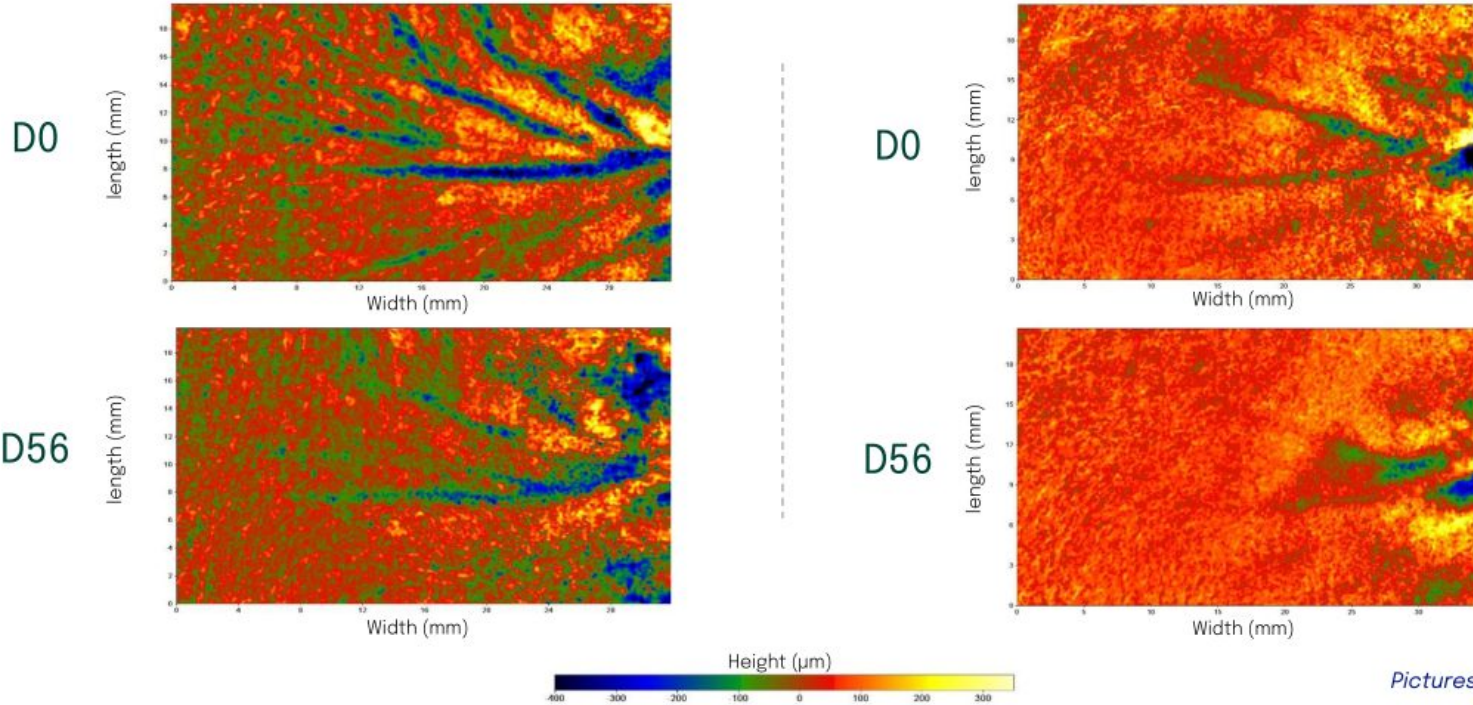
% var Ceramosides™ powder vs. D0



# Quickly visible results



WRINKLES DEPTH IS REDUCED **IN LESS THAN 2 MONTHS** WITH CERAMOSIDES™.



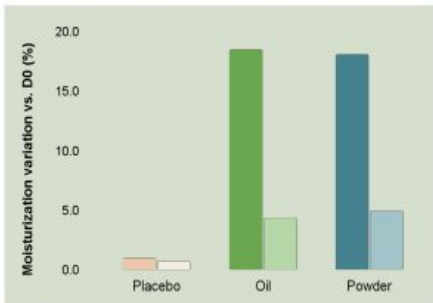
*Pictures acquired with PRIMOS*



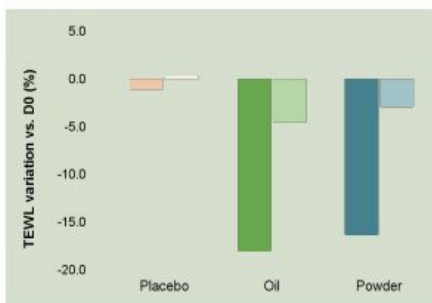
# Post intake efficacy

56 days after last product intake, all volunteers of the trial came back to evaluate all the skin parameters post-treatment

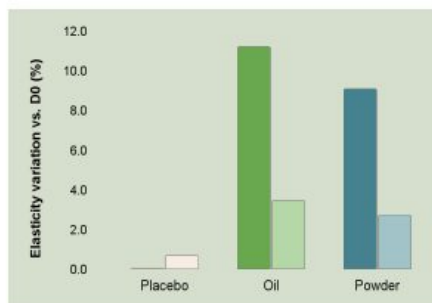
## SKIN MOISTURIZATION



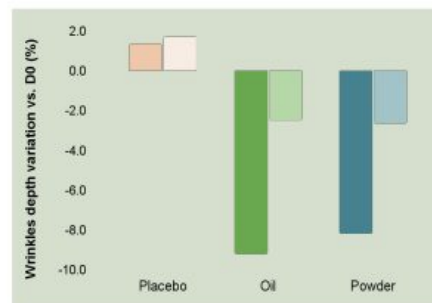
## TRANS-EPIDERMAL WATER LOSS



## SKIN ELASTICITY



## SKIN WRINKLEDNESS



Placebo D56

CERAMOSIDES™ Oil D56

CERAMOSIDES™ Powder D56

Placebo D56 post-treatment

CERAMOSIDES™ Oil D56 post-treatment

CERAMOSIDES™ Powder D56 post-treatment

► It should be noted that 56 days after stopping CERAMOSIDES™ treatment, the beneficial effects on skin beauty have significantly decreased but did not disappear completely, proving that the improvement observed during treatment can be attributed to CERAMOSIDES™ action.



## Consumers' satisfaction

- Overall, volunteers in both CERAMOSIDES™ groups were more satisfied with the product than participants who received the placebo, and in particular with skin moisturization and skin elasticity.



**91%**

feel better about themselves with Ceramosides™

**91%**

feel their skin is more elastic with Ceramosides™

**91%**

feel their skin is more moisturized

**78%**

feel their skin is firmer with Ceramosides™



# Mechanism of action



**1**

Anti-collagenase  
Action



Collagen network  
protection

**2**

Anti-elastase  
action



Skin elasticity  
preservation

**3**

Anti-radical  
effect



Oxidative stress  
protection



# Ceramosides™ science

–

## Hair

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# Gold standard scientific evidence

2022

## Pilot RCT

Dudonné, S. *et al.* "Efficacy of a wheat polar lipid complex in reducing hair loss and improving hair growth in healthy women: A randomized, double-blind, placebo-controlled clinical study." International Journal of Cosmetic Science (2023).

Randomized, double-blind, placebo controlled

66 healthy women with acute hair shedding\*  
18-65 yo

Daily dose:  
Powder Neutra: 30 mg

See results



2023

## Confirmatory RCT

Pending publication

Randomized, double-blind, placebo controlled

99 healthy women with acute hair shedding\*  
18-65 yo

Daily dose:  
Powder Neutra: 30 mg  
Oil Neutra: 70 mg

See results



- Monitoring of subjects dietary habits
- Strict restrictions (exclusion criteria) on hair wash, hair treatments and diseases (a.g. alopecia)



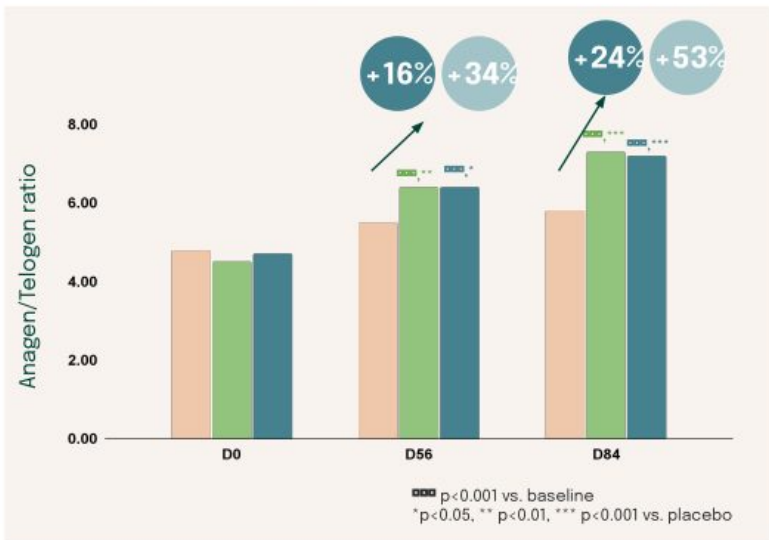
# Strong effect on hair growth



**HAIR GROWTH**  
**+14.7%**

**IN LESS THAN 3 MONTHS**  
**WITH CERAMOSIDES™ OIL**  
vs placebo (p<0.001)

## ANAGEN/TELOGEN RATIO



Placebo CERAMOSIDES™ oil CERAMOSIDES™ powder

% var Ceramosides™ powder vs. placebo

% var Ceramosides™ powder vs. D0

## N° OF NEW ANAGEN HAIRS in 56 days (vs. D0)\*

**CERAMOSIDES™ POWDER**  
**+4 400**  
**15 X MORE**  
THAN PLACEBO

\*Total number of hair in anagen phase =  
(Anagen hair density after use x scalp surface)  
- (Anagen hair density at D0 x scalp surface).  
Scalp surface: 580 cm<sup>2</sup>.



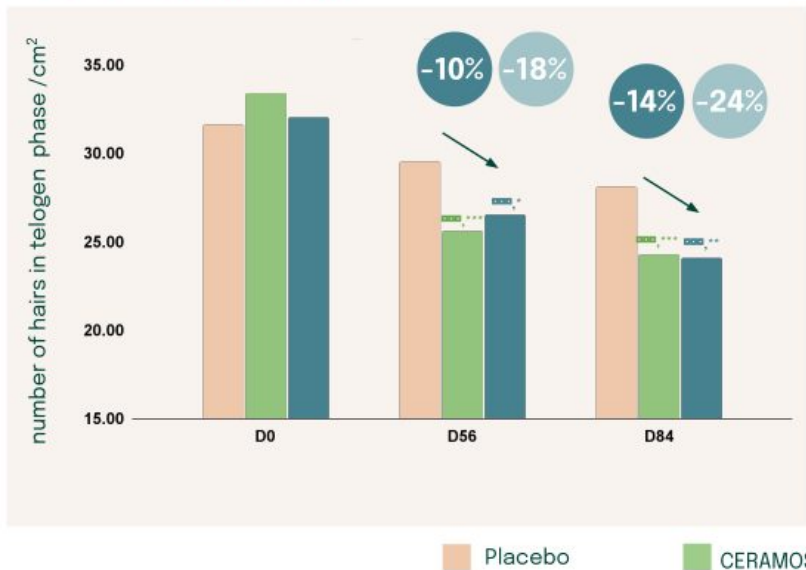


# Significant action on hair loss

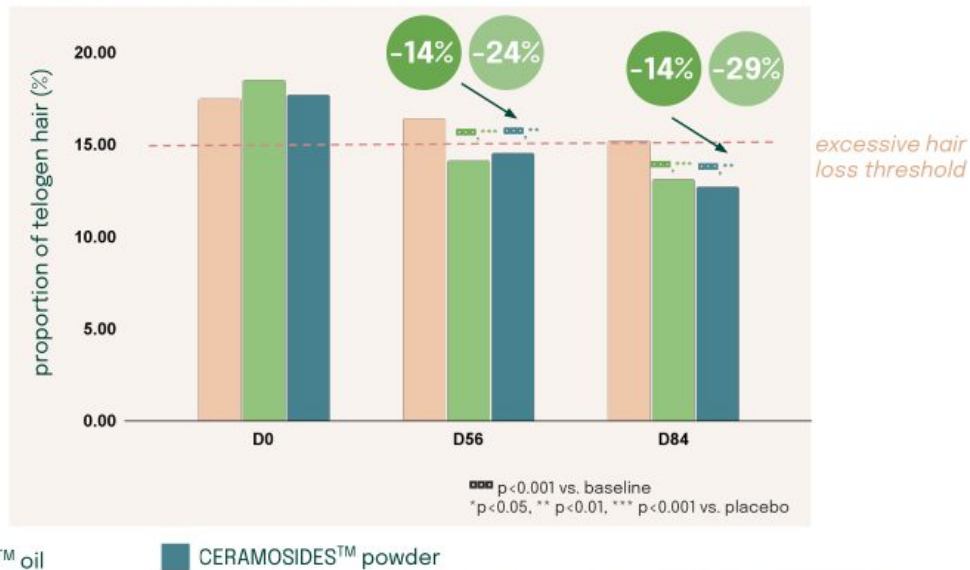


**i**  
**CERAMOSIDES™ help achieve normal levels of hair loss in only 2 months of supplementation.**

## TELOGEN HAIR DENSITY



## TELOGEN HAIR PROPORTION



■ p < 0.001 vs. baseline  
\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 vs. placebo

- % % var Ceramosides™ oil vs. placebo
- % % var Ceramosides™ powder vs. placebo
- % % var Ceramosides™ oil vs. D0
- % % var Ceramosides™ powder vs. D0



# Quickly visible results\*

Ceramosides™ Powder



D0



D56



D84



Ceramosides™ Oil

D0



D56



D84

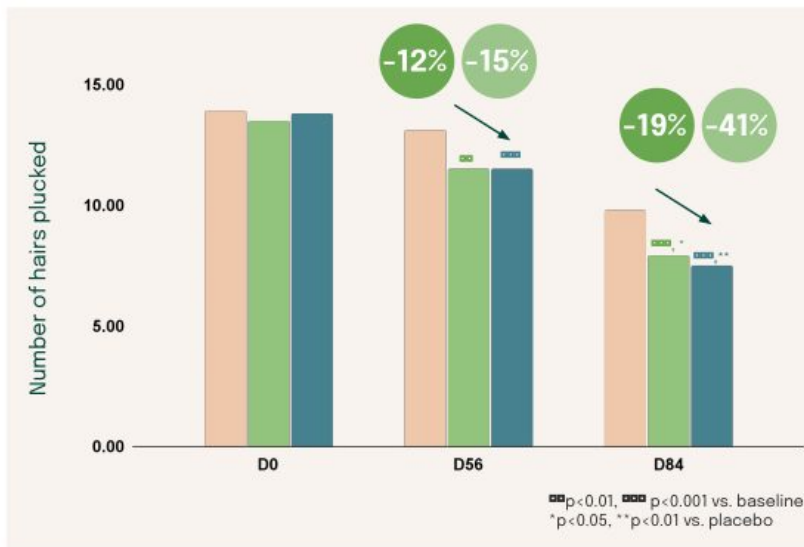




# Enhanced hair strength



## PULL TEST (resistance to traction)<sup>1</sup>



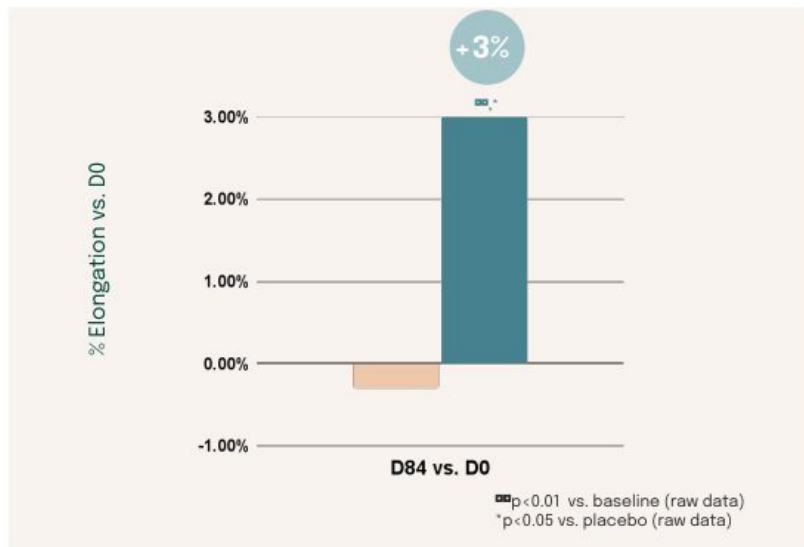
Placebo

CERAMOSIDES™ oil

CERAMOSIDES™ powder

Appendix 6

## HAIR ELASTICITY (resistance to breakage)<sup>2</sup>



% var Ceramosides™ oil vs. D0

% var Ceramosides™ oil vs. placebo

% var Ceramosides™ powder vs. D0



# Reduction of scalp sebum

- CERAMOSIDES™ reduced scalp sebum content in less than 3 months in women with oily hair.



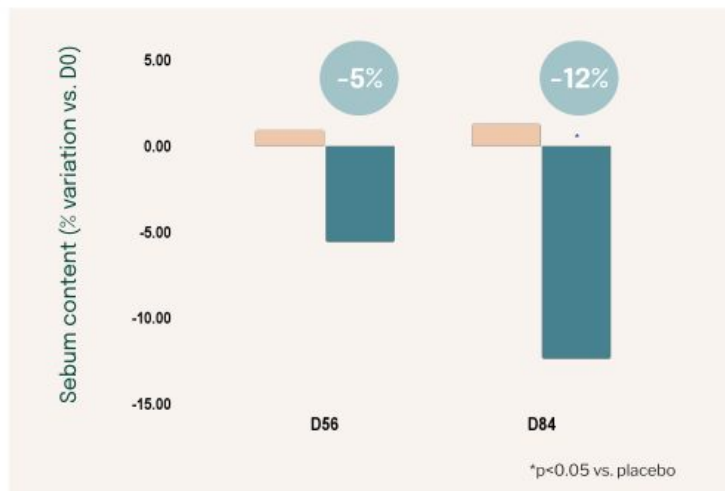
## POPULATION



women with oily hair  
(baseline sebum  
content  $\geq 140 \mu\text{g}/\text{cm}^2$ )



## SCALP SEBUM CONTENT





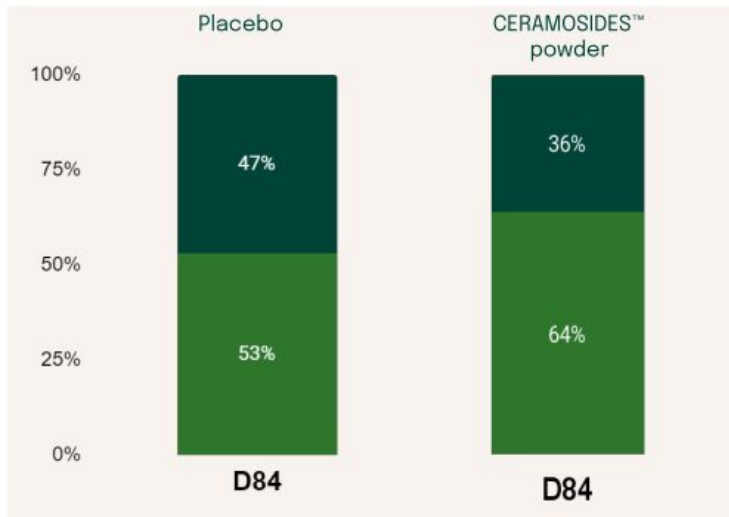
# Improvement of hair volume & density



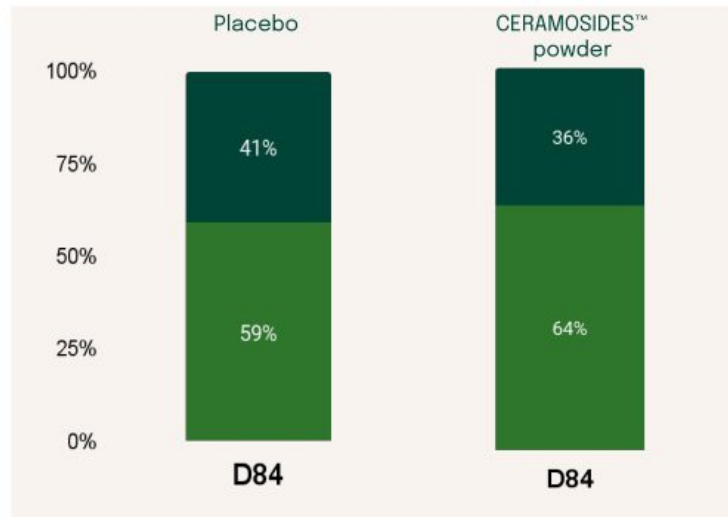
clinical evaluation by a dermatologist



## HAIR DENSITY



## HAIR VOLUME



■ Improvement    ■ No improvement



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Dudonné et al. Ceramosides hair confirmatory RCT - pending publication

Ceramosides™ science - hair



## Consumers' satisfaction

- Overall, volunteers in both CERAMOSIDES™ groups had a better perception of the product than those who received the placebo, and particularly highlighted less hair fall out and breakage as well as stronger hair and a faster hair growth.



100%

felt their hair grew faster with Ceramosides™

97%

lost less hair with Ceramosides™

97%

felt their hair was stronger and less prone to breakage with Ceramosides™

100%

were satisfied with Ceramosides™ efficacy

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29



# Ceramosides™ science – Menopause

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# Clinically studied action on menopausal women

- CERAMOSIDES™ efficacy was clinically confirmed in menopausal women on skin and hair beauty at the same level as the general population.

**2023**



## Skin - 2<sup>nd</sup> confirmatory RCT

Kern, C. *et al.* "Dietary supplementation with a wheat polar lipid complex improves skin conditions in women with dry skin and mild-to-moderate skin aging." *Journal of Cosmetic Dermatology*. 2024; 23:1320-1330.



**35 postmenopausal women**



Ceramosides™ Powder (30 mg) or Oil (70 mg) or placebo

**2023**



## Hair - Confirmatory RCT

*Pending publication*



**36 postmenopausal women**



Ceramosides™ Powder (30 mg) or Oil (70 mg) or placebo



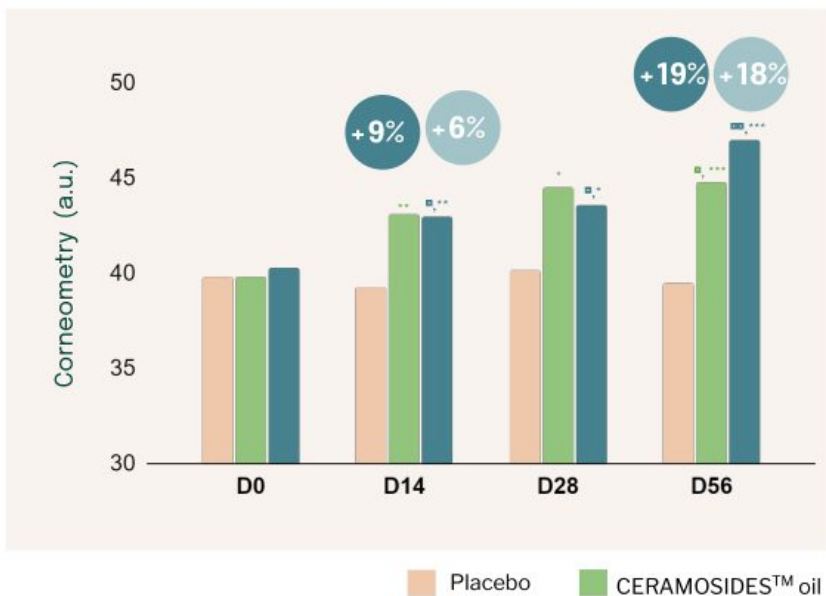
# Strong hydration benefits



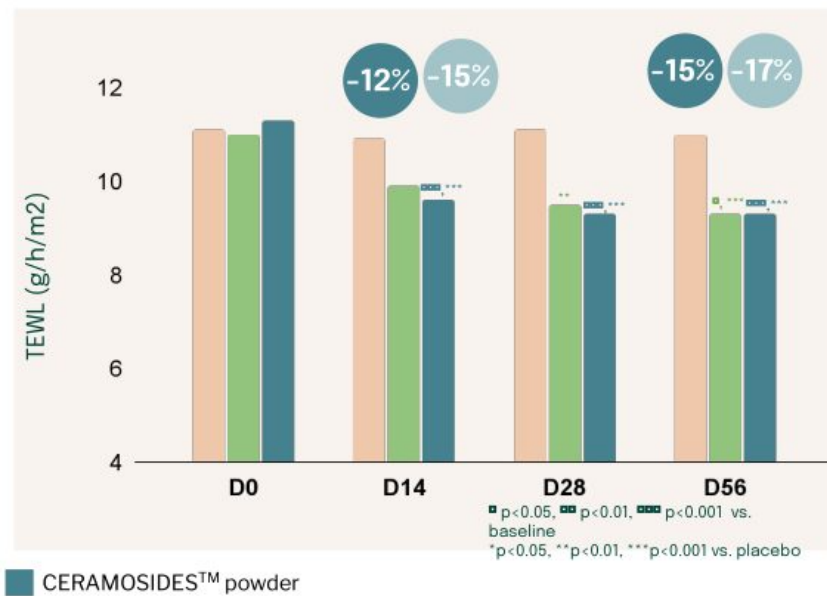
➤ CERAMOSIDES™ significantly improved skin hydration and skin barrier function in menopausal women.



## SKIN MOISTURIZATION



## TRANSEPIDERMAL WATER LOSS





# Powerful anti-aging action

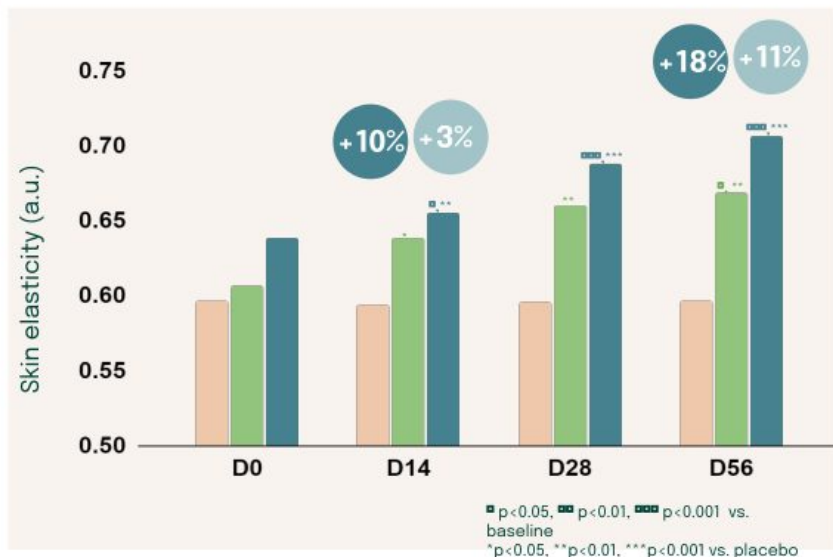
➤ CERAMOSIDES™ action on skin elasticity and skin wrinkles depth was also evidenced in menopausal women.



## SKIN WRINKLES DEPTH



## SKIN ELASTICITY



■ Placebo    ■ CERAMOSIDES™ oil    ■ CERAMOSIDES™ powder



# Remarkable action on hair growth

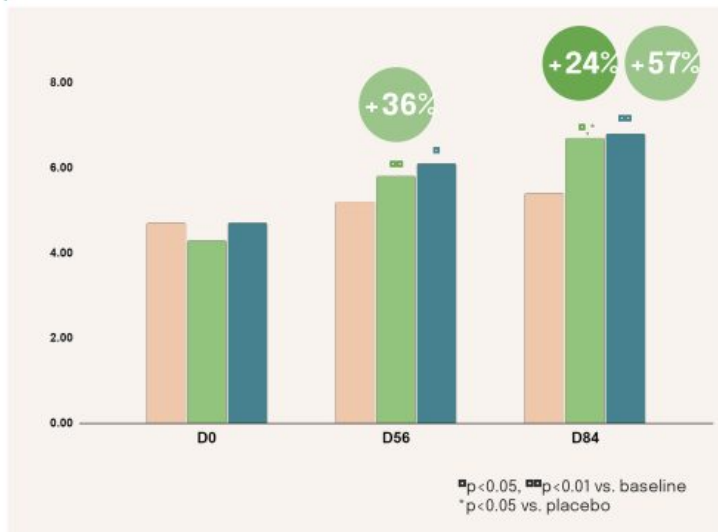


➤ Ceramosides™ action on hair growth and hair loss was confirmed in menopausal women.

**HAIR GROWTH**  
**+12.5%**

IN LESS THAN 3 MONTHS WITH  
**CERAMOSIDES™ POWDER**  
vs placebo (p < 0.05)

## ANAGEN / TELOGEN RATIO



■ Placebo   
 ■ CERAMOSIDES™ oil   
 ■ CERAMOSIDES™ powder



# Regulatory support

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# Ceramosomes™ regulatory status

NHPID accepted  
Master File with approved claims  
Allowed to be used in Natural Health Products

**Canada**



**USA**



NDI received by FDA with no objection letter  
Self affirmed GRAS status  
GRAS status



Please refer to the RMID to learn more about Ceramosides™ regulatory status in other countries.

Approved for use in Food Supplements in the EU  
Approved by DGCCRF French Authorities

**EU**



**ASEAN**

Status depends on local regulations



Listed on TGA's database



# Recommended labelling

## On-pack denominations

**Ceramosides™**  
Registered trademark by Seppic

- Wheat seed extract
- Wheat lipidic extract
- *Triticum vulgare* extract

## Nutritional information

	Nutritional values
Energy / Calories	900 kcal = 900 Cal = 3766 kJ max
Fat / Total fat	100% max
<i>including saturated fatty acids / Saturated fat</i>	0% max
<i>including trans fatty acids / Trans fat</i>	0% max
Carbohydrates / Total carbohydrates	0% max
<i>including sugars / Sugars</i>	-
<i>including dietary fibers / Dietary fibers</i>	-
Protein / Protein	0% max



# Recommended claims

## SKIN

EU

Help to maintain **the beauty of the skin** by decreasing skin wrinkles

Help to **reduce the appearance of wrinkles**

Help to maintain **a young look of the skin**

USA

Help to improve **skin elasticity**

Help to improve **skin appearance** by increasing skin smoothness and reducing roughness

USA

Help to improve **skin moisturization**

Help to maintain **the skin barrier function**

## HAIR

Help to improve **hair elasticity**  
Help to reinforce **hair strength**  
Help to improve **hair conditions**  
Help to improve **oily hair aspect**

Help to improve **hair growth**  
Help to reduce **hair loss**





# Concepts with Ceramosides™

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# Skin concepts

## 'Hydralift'

Preservation of skin hydration and reduction of the appearance of wrinkles

- **CERAMOSIDES™**
- Reduction of wrinkles
- Improvement of skin hydration

+

### Vitamin C

*"Contributes to normal collagen formation"*

+

### Hyaluronic acid



## Solar protection

Protect the skin from sun exposure and delay the signs of photoaging\*\*

- **CERAMOSIDES™**
- Reduction of wrinkles
- Improvement of skin hydration

+

### SEPIBLISS™

- Neuro-soothing action
- Anti-inflammatory action
- Antioxidant action

+

### Copper

*"Contributes to normal pigmentation of the skin"*

+

**Carotenoids:** lycopene /beta carotene / asthaxanthin





# Hair concepts

## Hair boost

Stimulation of hair growth and reduction of hair shedding

### CERAMOSIDES™

- Hair growth stimulation
- Hair loss reduction
- Hair resistance improvement

+

### Vitamin B8 (Biotin)

*"Contributes to the maintenance of normal hair"*

+

### Arugula extract (*Eruca sativa*)

*"Helps stimulate the hair bulb, favouring the growth of the hair"*



## Scalp care

Reduction of hair scalp sensitivity

### CERAMOSIDES™

- Reduction of scalp sebum

+

### SEPIBLISS™

- Neuro-soothing action
- Anti-inflammatory action

+

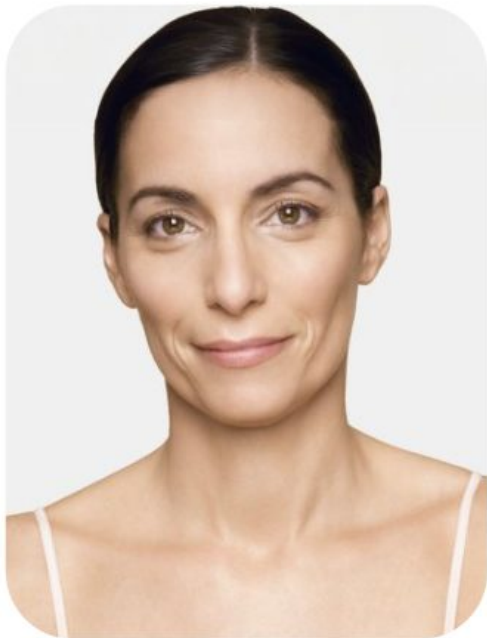
### Bilberries (*Vaccinium myrtillus*)

*"Activate the scalp microcirculation"*





# Menopause concept



## Menopause support Skin & hair beauty and menopause

- **CERAMOSIDES™**  
Reduction of wrinkles in menopausal women
- Improvement of skin hydration in menopausal women

+

**Vitamin B8 (Biotin)**  
*"Contributes to the maintenance of normal skin and hair"*

+

**Vitamin B6**  
*"Contributes to the regulation of hormonal activity"*



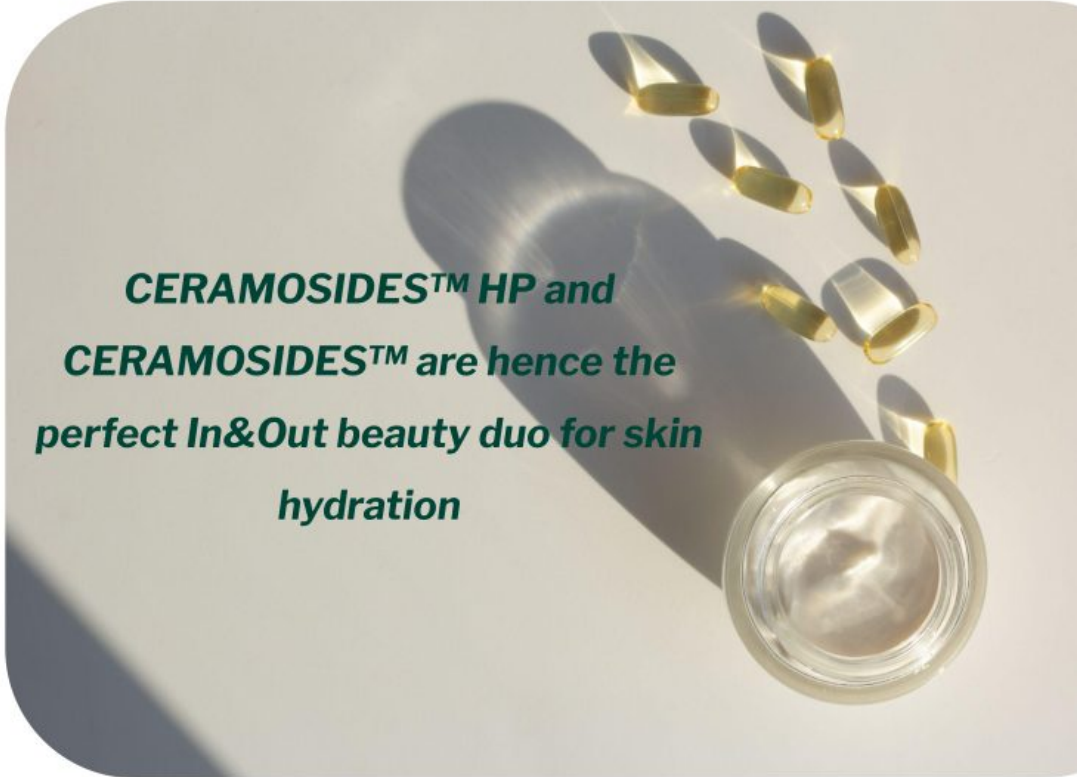
# In&Out concept



**Seppic offer also includes  
CERAMOSIDES™ HP**

*(INCI: Glycosphingolipids, Glycolipids)*

**for skin moisturization and a  
flawless complexion.**

A photograph showing a hand holding a clear glass jar of cream. Several golden, teardrop-shaped capsules are falling from the jar, creating a sense of motion. The background is a light, neutral color.

***CERAMOSIDES™ HP and  
CERAMOSIDES™ are hence the  
perfect In&Out beauty duo for skin  
hydration***

# CERAMOSIDES™ HP | Topical applications



The self-esteem booster, hydration enhancer and complexion corrector

**1**

Skin hydration improvement

**2**

Skin texture smoothed

**3**

Pores visibility tightened



# Examples of finished products

Ceramosides™ hard capsules



Ceramosides™ gummies



Ceramosides™ shots



Ceramosides™ sticks



Ceramosides™ liposomal pouches



Please contact a sales representative for formula details and to get prototypes.

# Why choose Ceramosides™?

**Low daily  
efficient dose**  
30 mg Powder or  
70 mg Oil

**Quick results:**  
2 weeks on skin  
2 months on hair

**Dual action at  
the same dose:**  
skin & hair

**The first  
phytoceramides  
with clinically  
proven action  
on hair growth\***

**Clinically  
researched**  
3 RCT skin  
2 RCT hair  
3 *in vitro* studies

Natural origin,  
vegan suitable,  
gluten free,  
Kosher, non GMO,  
no additives, no  
preservatives





# Appendices



# Ceramides quick action

Ceramides orally ingested reached the inner layer of the skin via bloodstream, providing full body coverage

**24h only**

to reach the epidermis  
after ingestion

Kinetics of ceramides (sphingolipids) distribution in the skin after oral ingestion have been **scientifically measured using radiolabeled ceramides in rats.**<sup>1</sup>

Digalactosyl Diglycerides (DGDG) boost phytoceramides efficacy by improving metabolism and absorption during digestion.

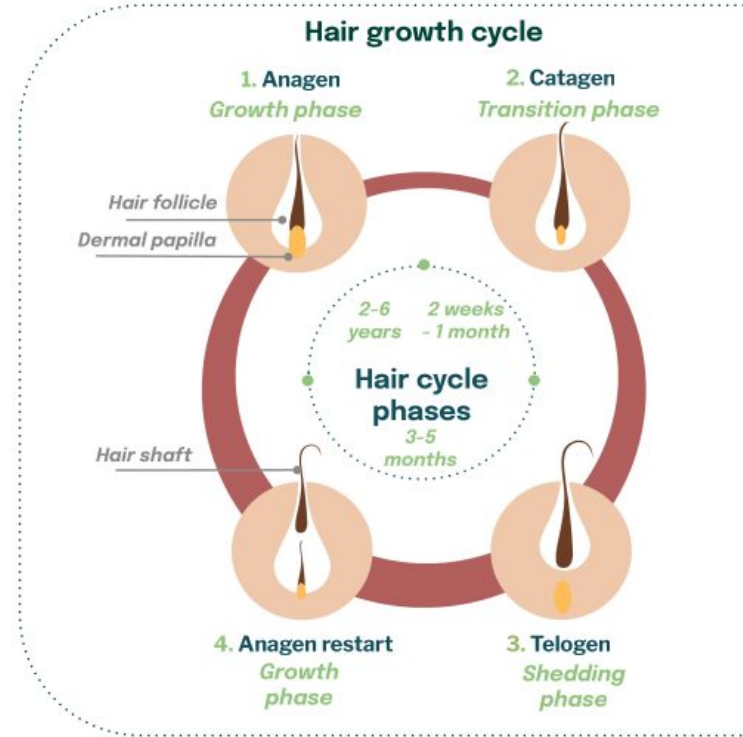


# The hair cycle

## Hair renewal is cyclical and relies on 3 main phases<sup>1,2</sup>:

- **Anagen phase:** hair growth phase, leading to hair production and elongation for 2 to 5-6 years. *85-90% of hairs are in that phase usually.*
- **Catagen phase:** transition or regression phase of the hair.
- **Telogen phase:** resting phase (no growth) leading to hair fall 2 - 3 months after entering the phase. *10% of the hairs are in this phase. People suffering from acute hair loss can have up to 30% of hairs in this phase.*

A study conducted on mice showed that **ceramides** could have an impact on the **improvement of hair growth by acting on the regulation of the hair cycle.**





# Preservation of the collagen network

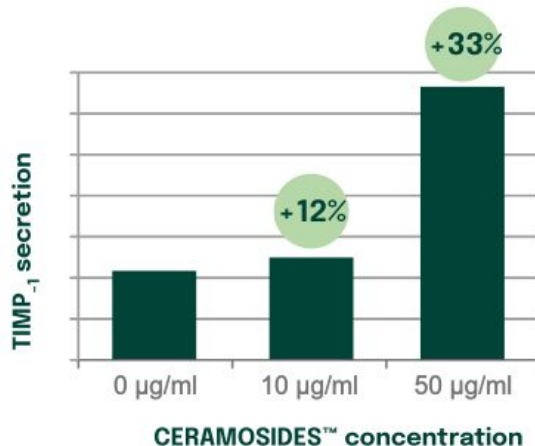


TIMP-1 is a specific inhibitor of collagenase MMP-1, naturally produced in human tissues. Its secretion was quantified after human skin fibroblasts have been incubated with CERAMOSIDES™ Powder Neutra *in vitro*:



Collagenase is an enzyme responsible for collagen network degradation

CERAMOSIDES™ induce the production of an inhibitor of collagenase



In presence of CERAMOSIDES™, secretion of TIMP-1 increases.

Collagenase inhibition is greater and collagen network integrity is better preserved.



# Preservation of skin elasticity

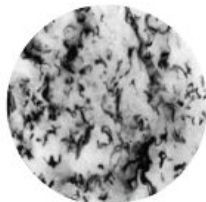


A normal young skin section is incubated with Human Leucocyte Elastase (HLE) to show its role in elastic fibers degradation. Then another young normal skin section is incubated with a mix of Leucocyte Elastase and CERAMOSIDES™ Powder Neutra :

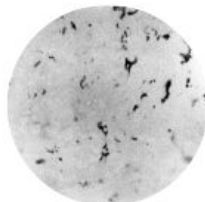


**Elastase is an enzyme destroying elastic fibers and is involved in inflammatory process**

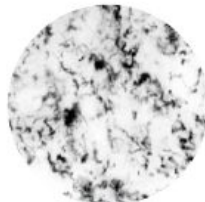
CERAMOSIDES™ are a potent inhibitor of Elastase and helps protect cutaneous elastic fibres against degradation during inflammatory process



Colored elastic fibers in a normal young skin section



Elastase degrades more than 90% of elastic fibers



0.005% of CERAMOSIDES™ inhibits more than 80% of elastase activity

In presence of CERAMOSIDES™, leucocyte elastase activity decreases.

Elastase inhibition is greater and skin elasticity and integrity are better preserved.



# Reduction of oxidative stress



An anti-radicalar test is performed to measure CERAMOSIDES™ activity on the reduction reaction of Cytochrome C by a superoxide radical (xanthine oxydase):



**Oxidative stress is caused by free radicals coming from inhaled oxygen and external factors (UV, pollution, etc).**

CERAMOSIDES™ help fight free radicals and helps inhibit oxidative reactions in the body.

CERAMOSIDES™	Inhibition of Cytochrome C reduction
Final concentration (mg/ml)	(% in comparison with enzyme control + solvent)
1.5mg/ml	39.2% $\sigma$ n-1 = 3.45

CERAMOSIDES™ inhibit the reduction reaction of Cytochrome C by capturing free radicals like superoxide anions.

Protection against oxidative stress is enhanced.



# Enhanced hair strength



## HAIR ELASTICITY (resistance to breakage)<sup>2</sup>





# Results of the 2<sup>nd</sup> confirmatory RCT - Skin

Kern, C. *et al.* "Dietary supplementation with a wheat polar lipid complex improves skin conditions in women with dry skin and mild-to-moderate skin aging." *Journal of Cosmetic Dermatology*. 2024; 23:1320-1330.

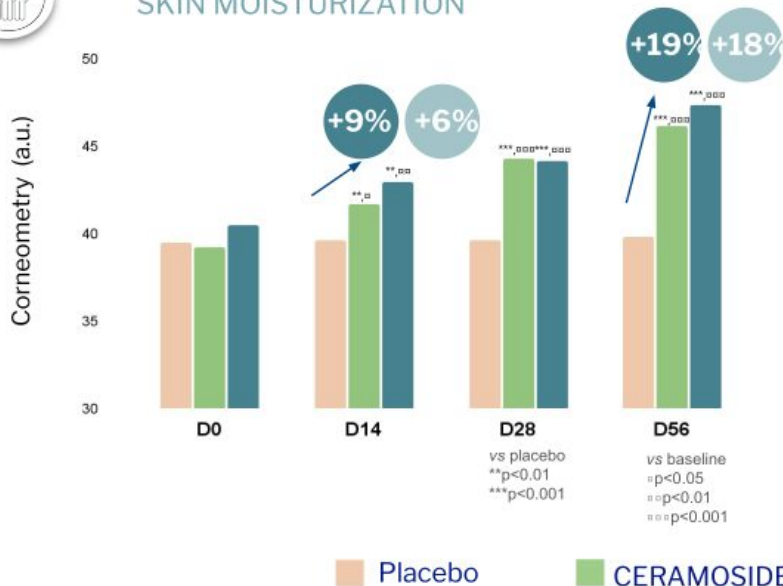




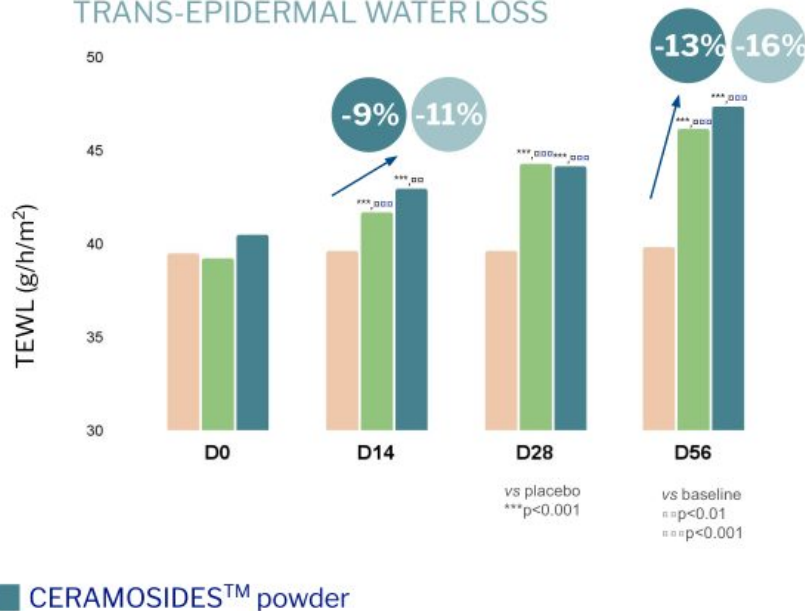
# Quick action on skin hydration



## SKIN MOISTURIZATION



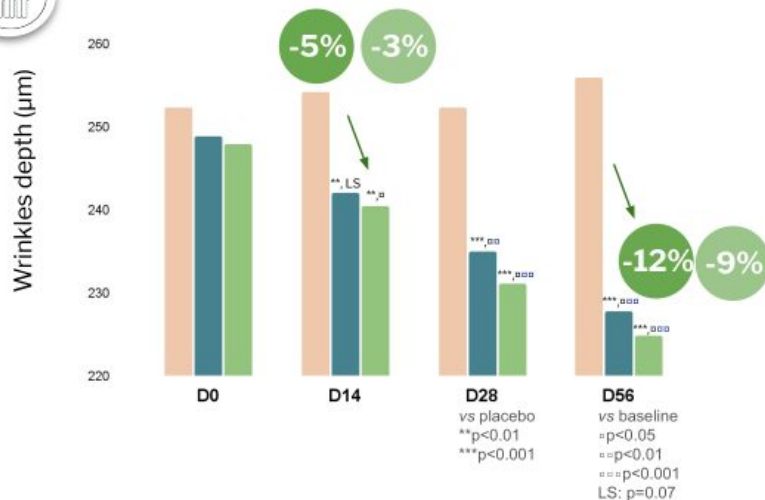
## TRANS-EPIDERMAL WATER LOSS



# Quick action on skin aging



## SKIN WRINKLEDNESS



Placebo CERAMOSIDES™ powder CERAMOSIDES™ oil

## SKIN ELASTICITY

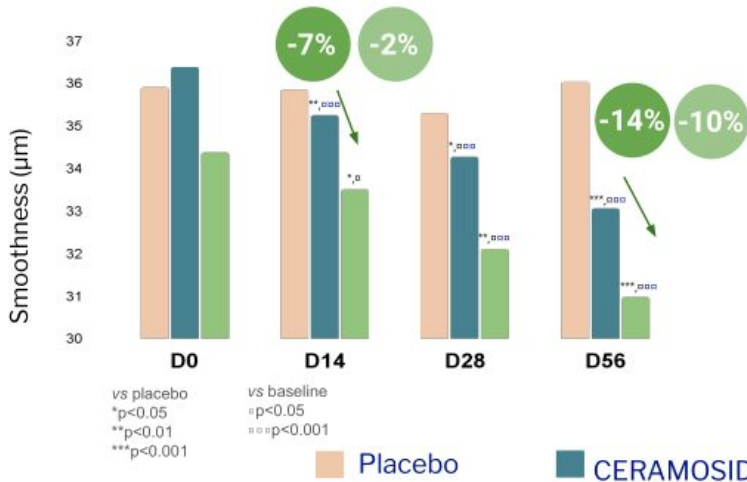




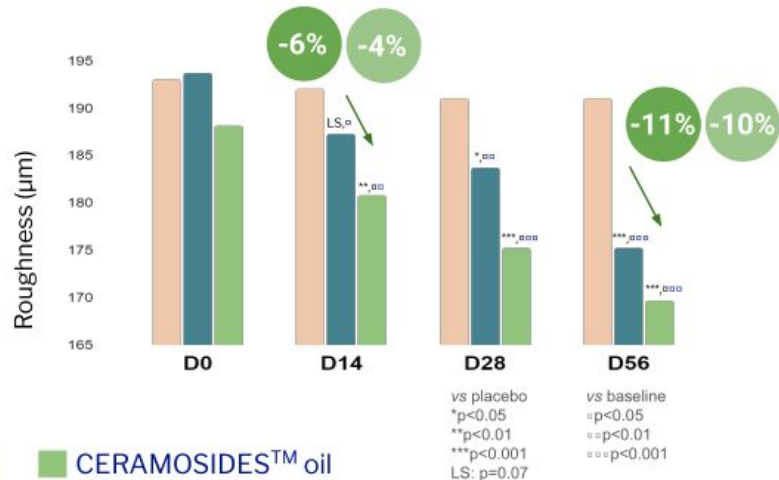
# Beneficial action on skin texture



## SKIN SMOOTHNESS\*



## SKIN ROUGHNESS



\* A decrease of Ra means an improvement of skin smoothness



# Results visible quickly



VISIBLE REDUCTION OF WRINKLES **IN LESS THAN 2 MONTHS** WITH CERAMOSIDES™.

D0



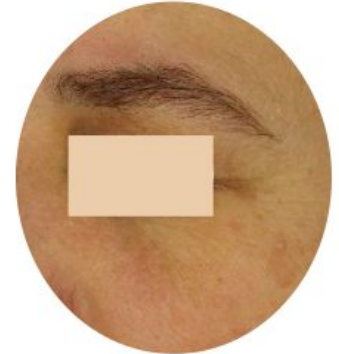
D56



D0



D56





# Results of the pilot RCT

-

## Hair

Dudonné, S. *et al.* "Efficacy of a wheat polar lipid complex in reducing hair loss and improving hair growth in healthy women: A randomized, double-blind, placebo-controlled clinical study." *International Journal of Cosmetic Science* (2023).



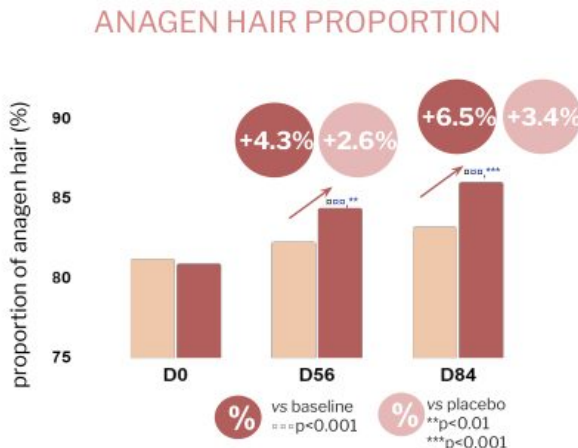
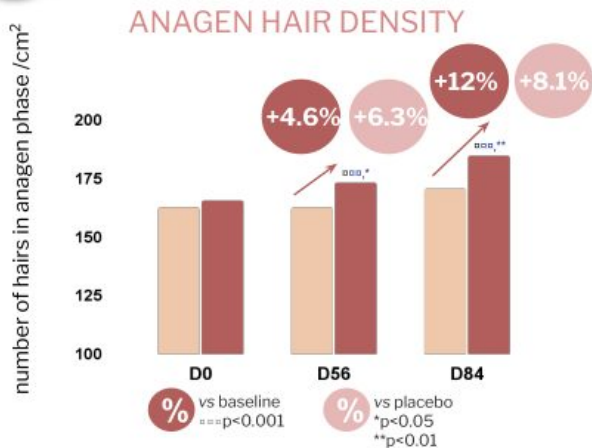
# Strong effect on hair growth



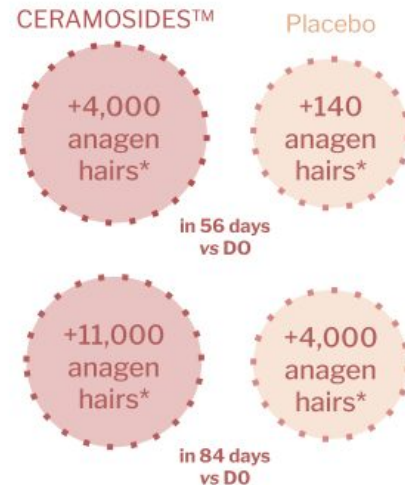
Hair growth  
+12.5%

in less than 3 months  
vs placebo (p<0.001)

General population



Placebo CERAMOSIDES™ powder



\*Total number of hair in anagen phase = (Anagen hair density after use x scalp surface) - (Anagen hair density at D0 x scalp surface). Scalp surface: 580 cm<sup>2</sup>.



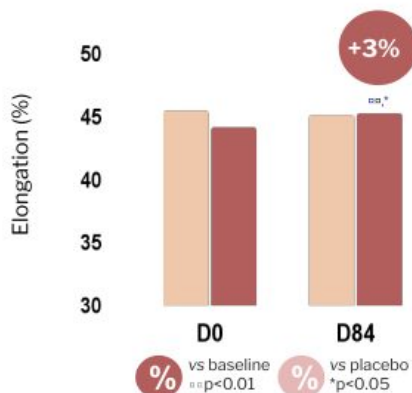


# Enhanced hair strength

General population

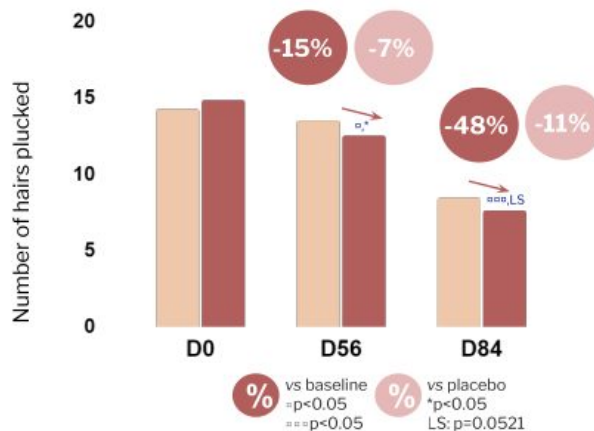


## HAIR ELASTICITY (resistance to breakage)



Placebo CERAMOSIDES™ powder

## PULL TEST (resistance to traction)



# Strong effect on hair growth



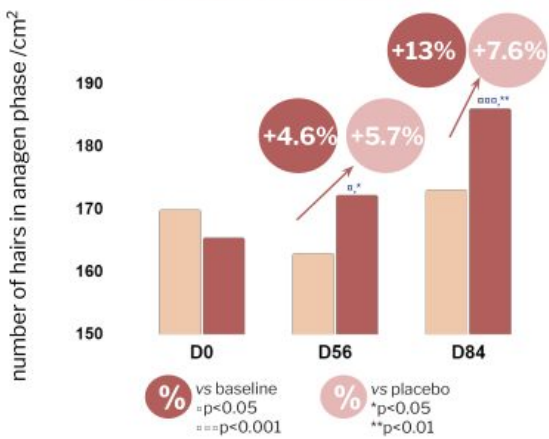
Post-hoc analysis  
Menopausal women



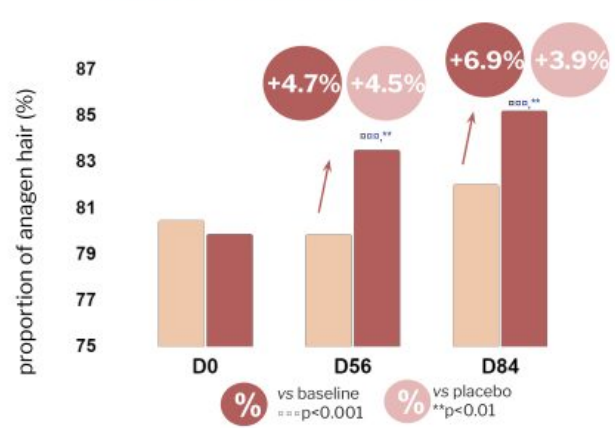
Hair growth  
+9%

in less than 3 months  
vs placebo (p<0.05)

## ANAGEN HAIR DENSITY



## ANAGEN HAIR PROPORTION



Placebo CERAMOSIDES™ powder



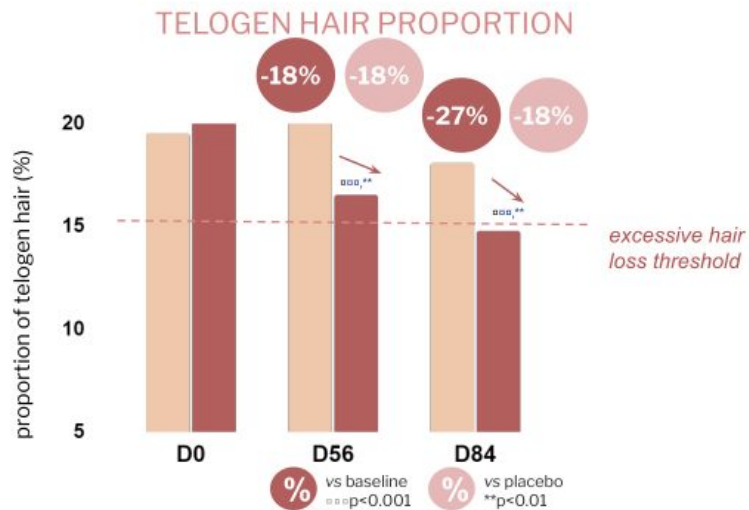
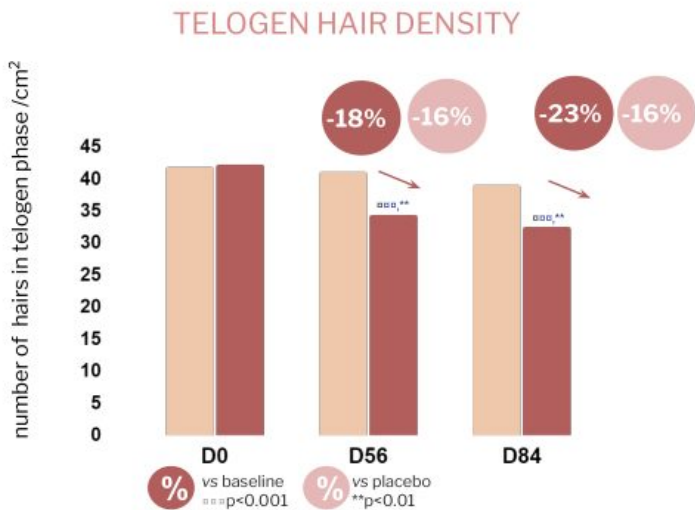
\*Total number of hair in anagen phase = (Anagen hair density after use x scalp surface) - (Anagen hair density at D0 x scalp surface). Scalp surface: 580 cm².



# Significant action on hair loss



Post-hoc analysis  
Menopausal women



Placebo CERAMOSIDES™ powder

CERAMOSIDES™ helps achieve normal levels of hair loss in only 3 months of supplementation.



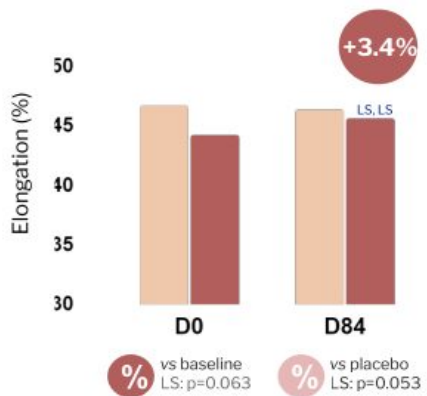
# Enhanced hair strength



Post-hoc analysis  
Menopausal women

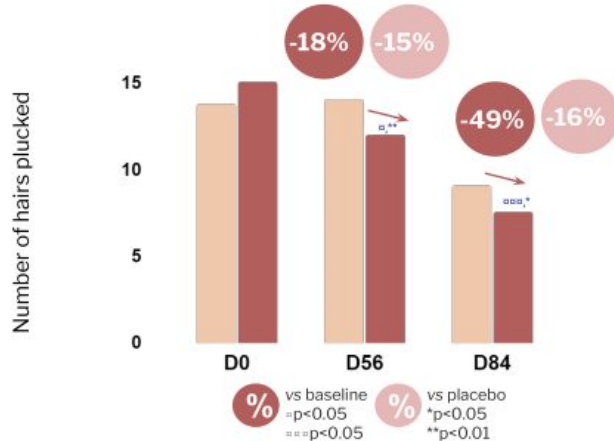


## HAIR ELASTICITY (resistance to breakage)



Placebo CERAMOSIDES™ powder

## PULL TEST (resistance to traction)





# Consumers' satisfaction with Ceramosides™

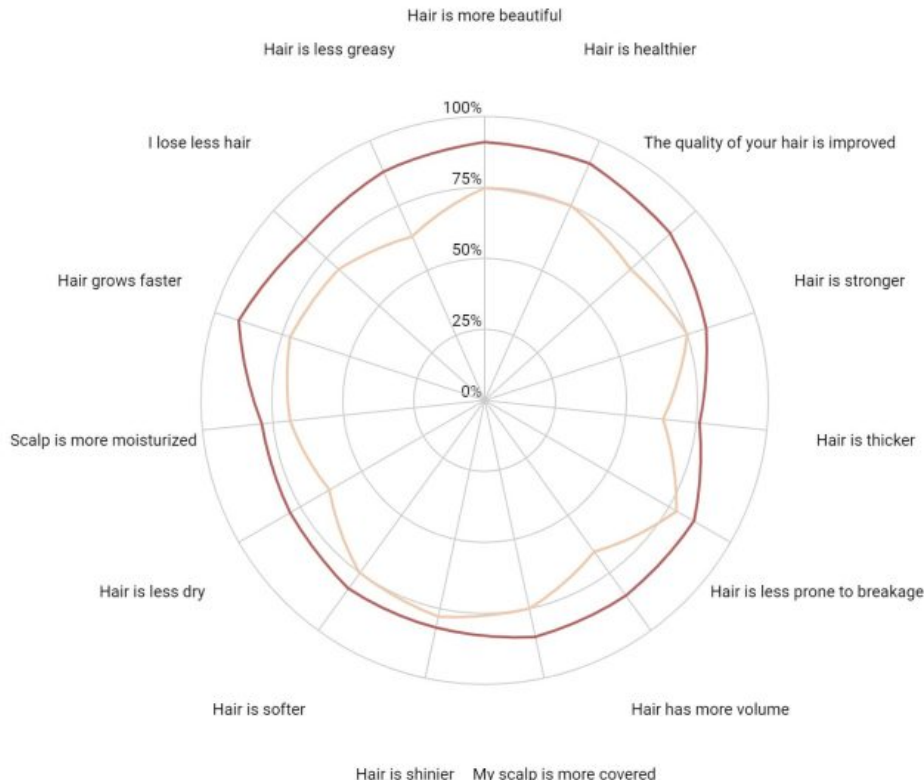
General population



Overall, **CERAMOSIDES™** effects on hair and scalp were better perceived than the placebo.

Especially, subjects from the **CERAMOSIDES™** group found their **hair grew faster, fell less, improved in quality and was less greasy** after a supplementation of **84 days**.

— Placebo — CERAMOSIDES™ powder



# Contact



## Nota:

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