

# CLEAR Oléoactif®

Anti-blemish solution for  
a clearer complexion

**HALLSTAR** ✦  
B E A U T Y



# WHY DO BLEMISHES APPEAR ?

# Key facts

- Skin imperfections like acne are a problem for : **90% of the teenagers**<sup>[1]</sup> but also for **many adults**.
- Same prevalence between Asian and Caucasian women <sup>[2]</sup>.
- Factor of **depression, anxiety** and other psychological disorders.
- **Pharmaceutical approaches = side effects** irritation, photosensitization, dryness.
- Many cosmetics **just** consist in an **absorption of sebum**. Other try to **treat some** causes.



# Physiopathology

- Main factors

1. Increased and altered production of sebum
2. Clogging of the sebaceous duct by sebum and keratinocytes - Hyperkeratinisation
3. Colonisation of the follicle by *C. acnes*.
4. Release of inflammatory mediators

- Types of lesions

Non-inflammatory : comedones

Inflammatory : papules, pustules, nodules

- Causes

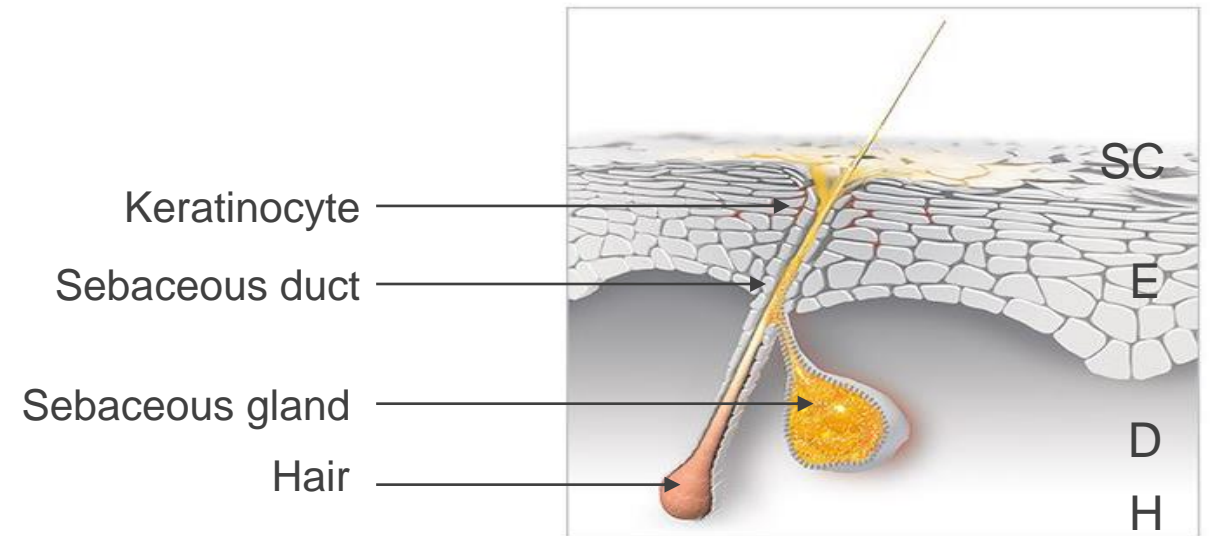
Hormonal changes

Occlusive or aggressive cosmetics

Humidity, sweat

- Aggravating factors

UV, pollution



*Pilosebaceous follicle*

# Physiopathology

- Since the 1960s, researchers at University of Chicago postulated that the **oxidative stress** is not merely a **consequence** of the acne process [3].

**CLEAR Oléoactif®**

**Oxidative stress**

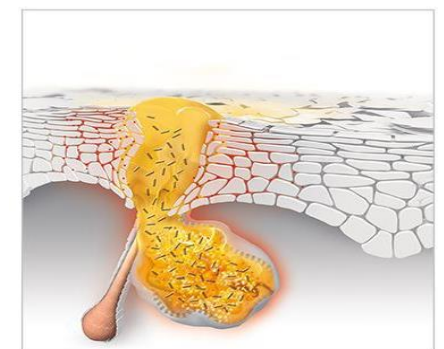
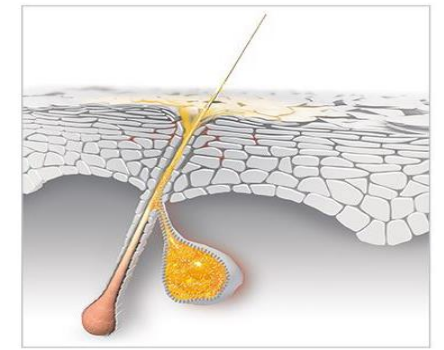
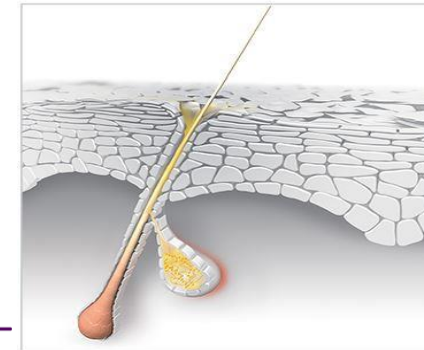
**Increased and altered sebum production**  
**Lipid peroxides, ROS**

**Bacterial proliferation**  
(*C. acnes*)

Upregulation of  
**5-LOX** activity

**Inflammation**  
(mediators production  
(LT, IL-6, IL-8))

**Hyperkeratinisation**



# Forget the myths about oil !

**Skin needs oil** to keep it protected and to prevent water-loss.

This is why the **sebaceous glands** in our skin produce sebum.

**Oil-based galenic facilitates the penetration of actives** into the sebaceous duct, thus actives can target the sebaceous gland more easily.

Studies indicate that **acne prone skin is deficient in linoleic acid** [11], [12]

**It's all about which oil you use !**

*“ More you delipidate, more the sebum excretion is increased ”*

Lise Agopian, Dermatologist, COSMED Scientific congress, Montpellier, October 9, 2015.



HOW CAN  
WE ACT ?

# *In tubo* and *ex-vivo* tests

- Antioxidant protection of lipids
- Control of *C. acnes* bacterial stress
  - Neutralisation of epidermal lesions
  - Inhibition of inflammatory stress
  - Prevention of hyperkeratinisation





# Antioxidant protection of lipids



CAT test (Conjugated Autoxidizable Triene)

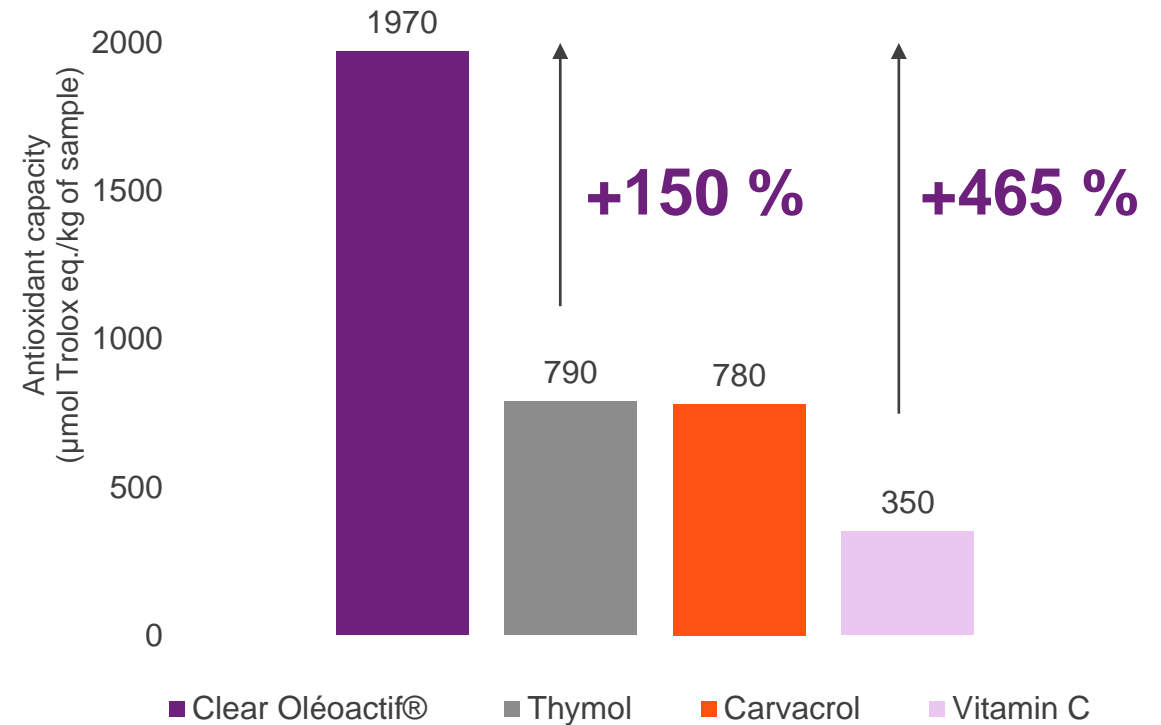
- **Protocol**

CLEAR Oléoactif® (0,15% of total polyphenols)  
Thymol and Carvacrol (0,15% - thyme biomarkers)  
Vitamin C (0,15% - antioxidant reference)

- **Results**

In equal concentrations in active molecules, CLEAR Oléoactif® allows a **better protection of the lipids against the oxidation than :**

- thymol and carvacrol ;
- and vitamin C.



Spectrophotometric measurements.

Average of two independent experiments (n=2).

Analysis of 1 batch of the 3 reference molecules and 3 batches of CLEAR Oléoactif®.

# Control of *C. acnes* bacterial stress



## Neutralisation of epidermal lesions

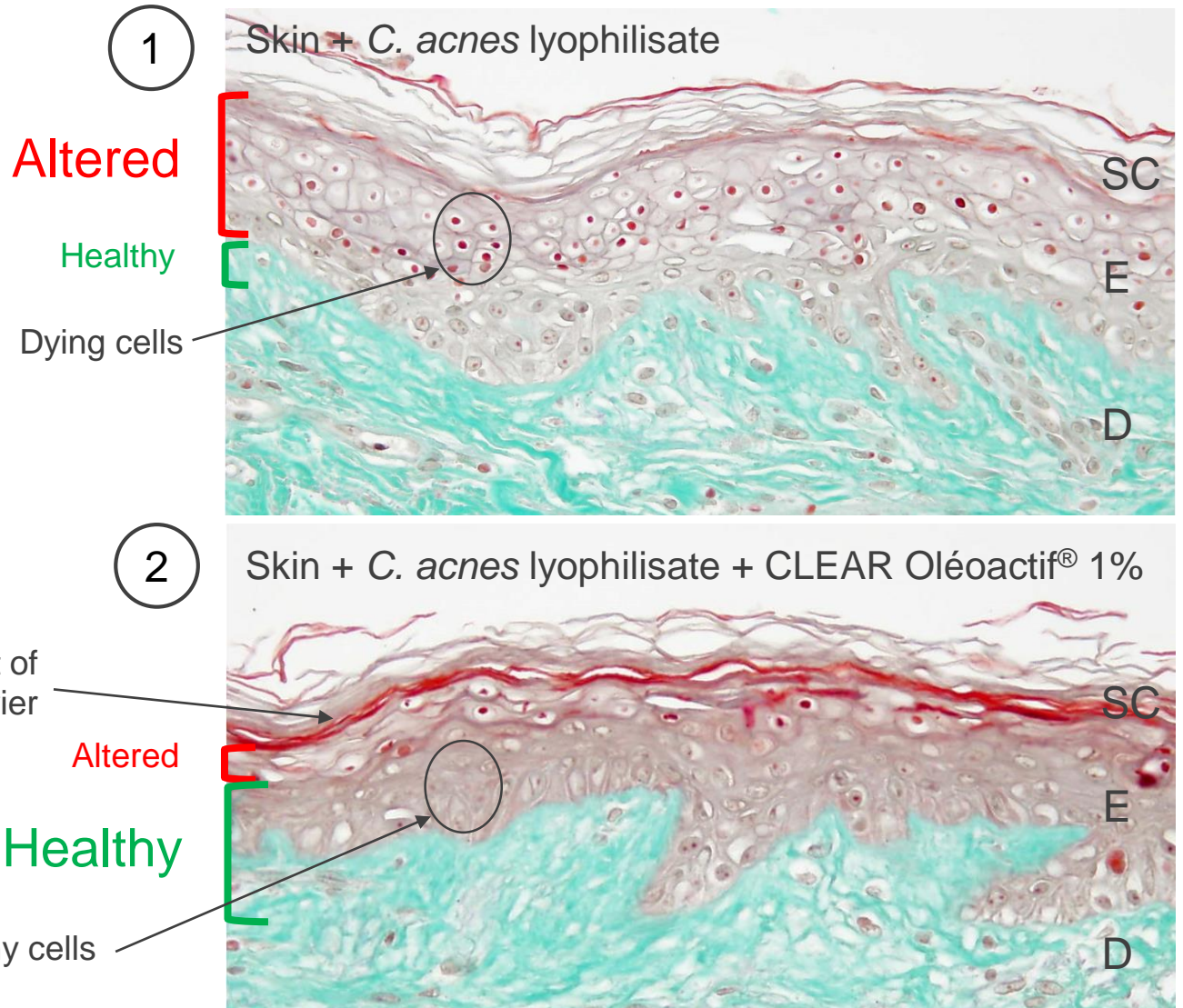
- **Protocol**

Human scalp explants were used and left untreated, or topically treated with *C. acnes* lyophilisate, or *C. acnes* lyophilisate + 1% of CLEAR Oléoactif®.

Cell viability assessed by microscopical observation after Masson's trichrome staining.

- **Results**

1% CLEAR Oléoactif® protects the epidermis from the lesions due to an excess of *C. acnes* bacteria.



# Control of *C. acnes* bacterial stress

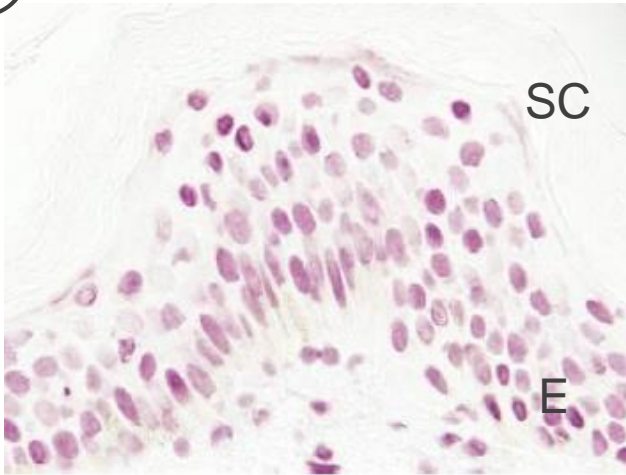


## Inhibition of inflammatory stress and prevention of hyperkeratinisation

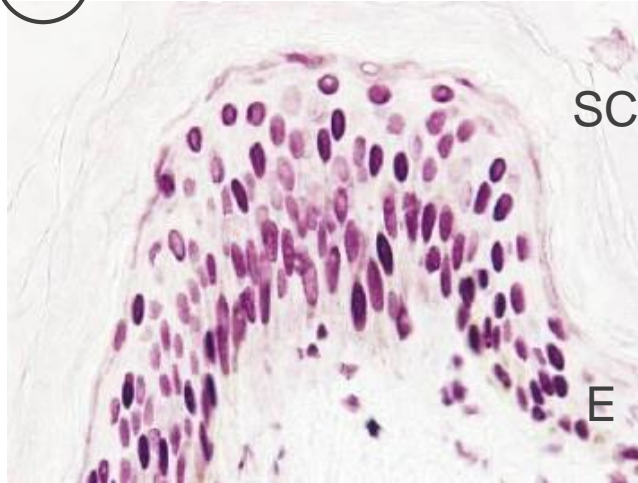
- **Protocol**

Skin explants with 3 conditions : untreated, topically treated with *C. acnes* lyophilisate, or *C. acnes* lyophilisate + 1% of CLEAR Oléoactif®. Immunostaining of the 5-lipoxygenase (5-LOX).

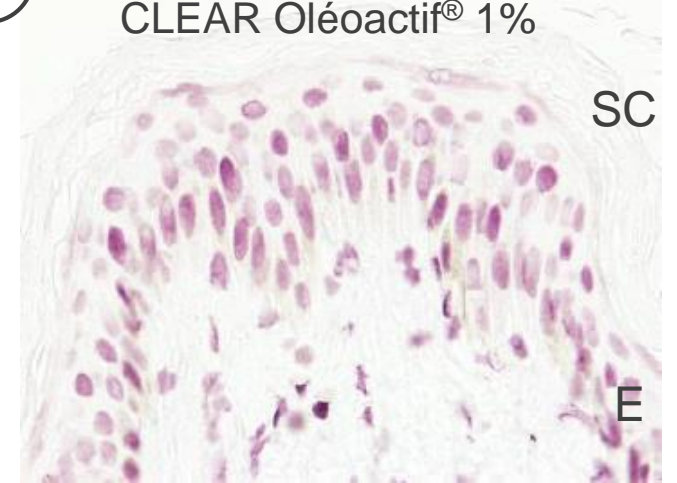
① Skin without any treatment



② Skin + *C. acnes* lyophilisate



③ Skin + *C. acnes* lyophilisate + CLEAR Oléoactif® 1%



- **Results**

After only 3 days, 1% CLEAR Oléoactif® completely inhibits the increase of activity of the 5-LOX following *C. acnes* application.

# Clinical assessment

- Anti-imperfection effect
  - Reduction of inflammatory lesions
  - Reduction of retentional lesions
- Removal of skin redness
- Sebum reduction
- Self-evaluation

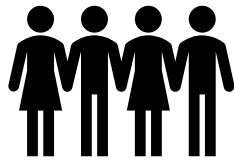


# Clinical protocol



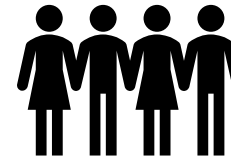
Randomized and **double blind** study.

**50 volunteers** with combination to oily skin with acneic tendency. Aged **13 to 39 years old**.



**1% CLEAR Oléoactif<sup>®</sup> cream**  
25 subjects = 15 women + 10 men

VS



**Placebo cream**  
25 subjects = 17 women + 8 men

Twice-daily application on full face



At D0 and D29 :

- Clinical scoring of skin lesions by a dermatologist
- Sebum production (Sebumeter<sup>®</sup>)
- Clinical and chromametric evaluations of skin redness
- Face photos (VisioFace<sup>®</sup>)

At D29 : Self-evaluation questionnaire



# Anti-imperfection effect



## Reduction of inflammatory lesions

- Protocol

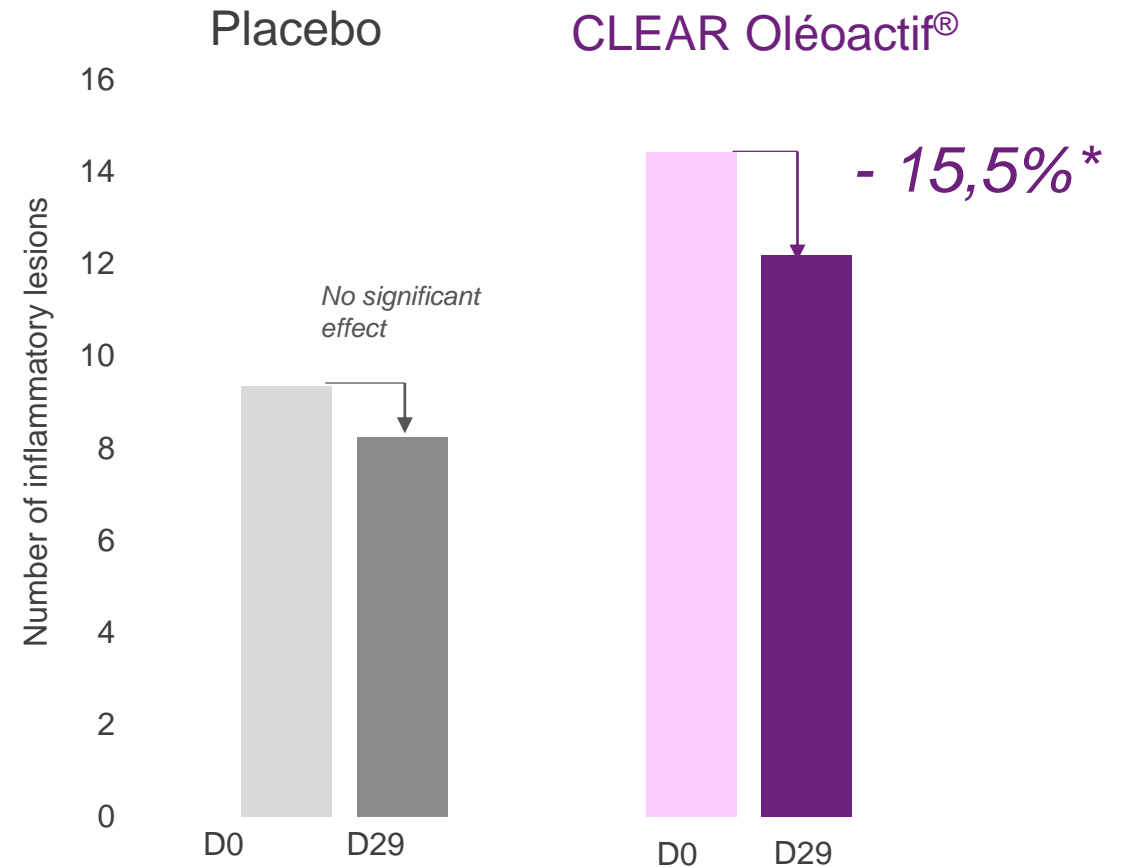
Clinical scoring of inflammatory lesions



by the Dermatologist.

- Results

A statistically **significant decrease** in the number of papules, pustules and nodules between D1 and D29.



Student's test : \* vs D0, significant with  $p < 0,05$ .

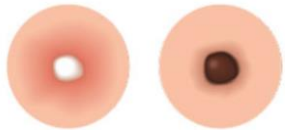
# Anti-imperfection effect



## Reduction of retentional lesions - comedones

- Protocol

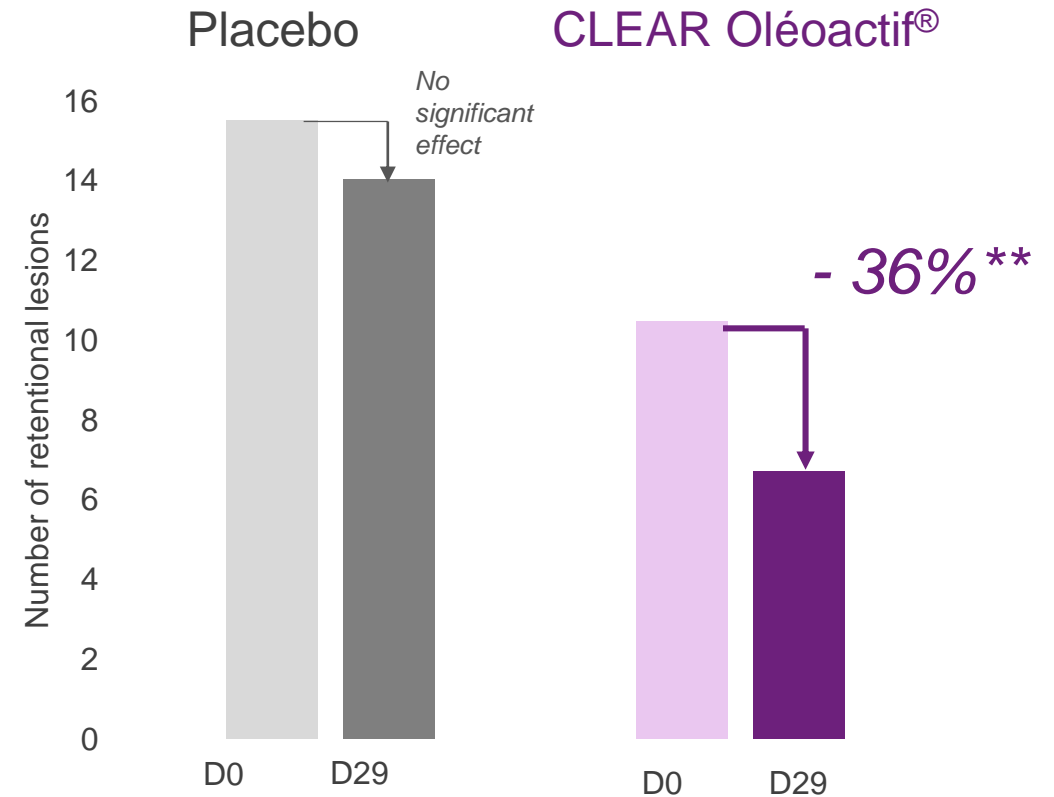
Clinical scoring of retentional lesions



by the Dermatologist.

- Results

A statistically significant decrease in the number of **blackheads** and **whiteheads** between D1 and D29. Comedolytic effect.



Student's test : \*\* vs D0, significant with  $p < 0,05$ , and vs placebo, significant with  $p < 0,05$ .

# Anti-imperfection effect

AVERAGE  
- 38%\*\*\*

UP TO  
- 86%

1%  
Dose



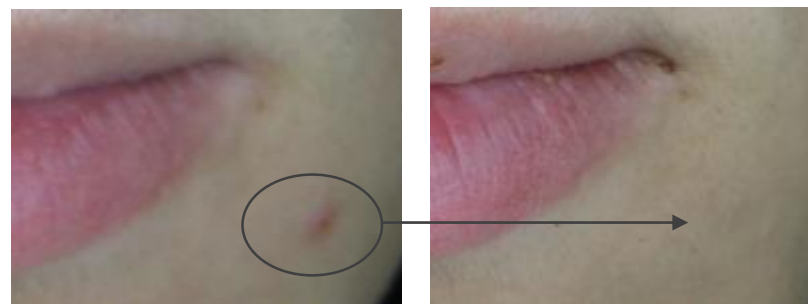
## Results on men



D0

D29

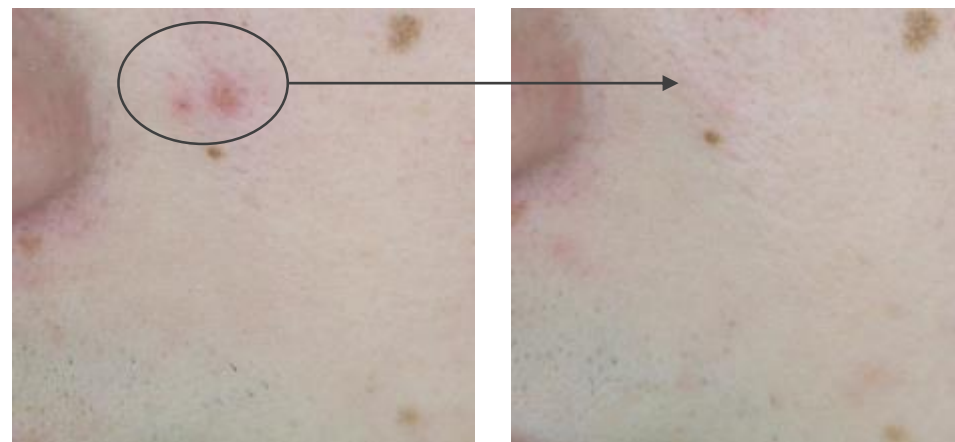
Volunteer no. 40  
Male - Age 15



D0

D29

Volunteer no. 25  
Male - Age 16



D0

D29

Volunteer no. 20  
Male - Age 15



# Anti-imperfection effect

AVERAGE  
- 33%#

UP TO  
- 80%

1%  
Dose



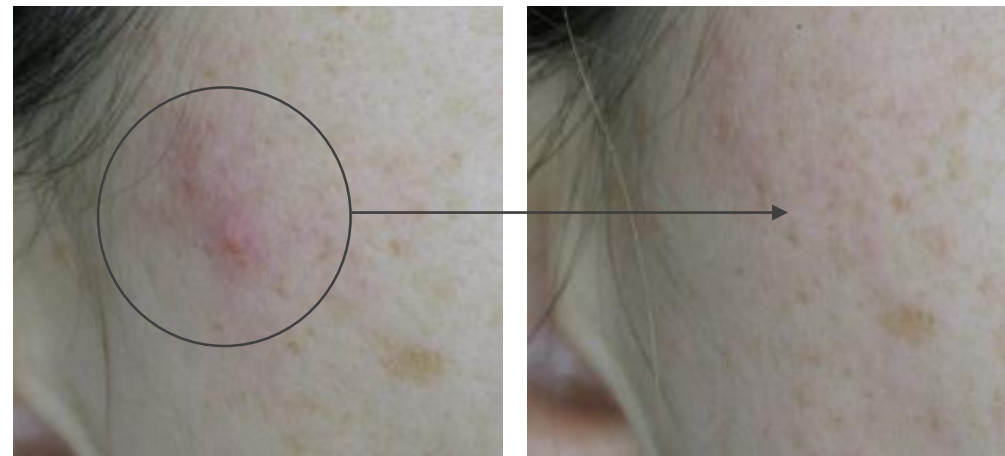
## Results on women



D0

D29

**Volunteer no. 16**  
**Female – Age 20**



D0

D29

**Volunteer no. 46**  
**Female – Age 28**

Number of retentional lesions (D29 vs D0) (%) – Student's test : # vs D0, significant with  $0,10 > p > 0,05$ , and vs placebo, significant with  $p < 0,05$ .

# Anti-imperfection effect

Results on < 25 years old

AVERAGE  
- 32%#

UP TO  
- 86%

1%  
Dose



D0

D29

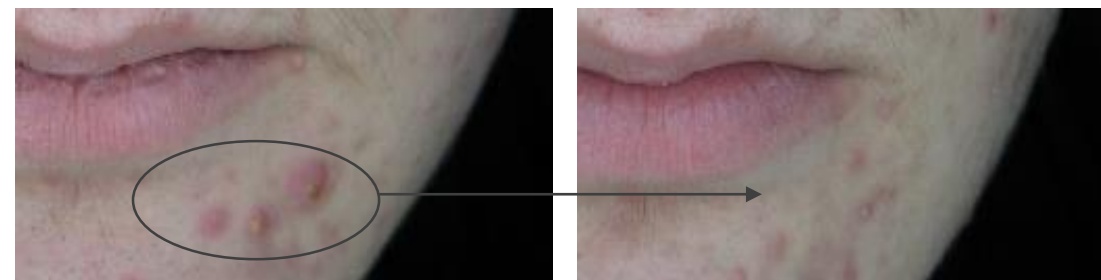
Volunteer no. 29  
Male - Age 15



D0

D29

Volunteer no. 6  
Female - Age 24



D0

D29

Volunteer no. 37  
Male - Age 13

Number of retentional lesions (D29 vs D0) (%) – Student's test : # vs D0, significant with  $0,10 > p > 0,05$ , and vs placebo, significant with  $p < 0,05$ .

# Anti-imperfection effect

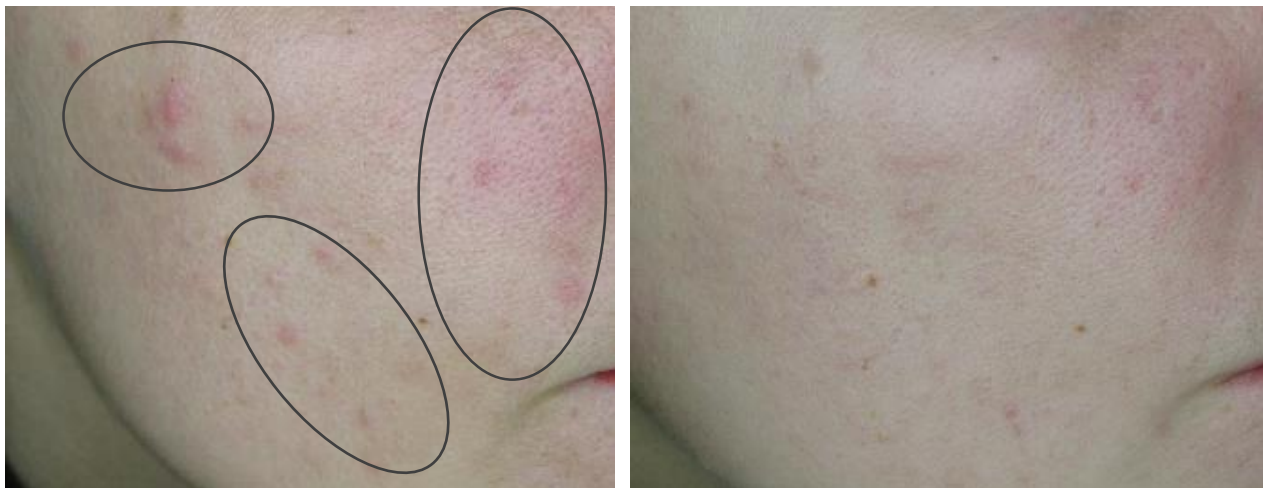
AVERAGE  
- 73%\*\*\*

UP TO  
- 90%

1%  
Dose



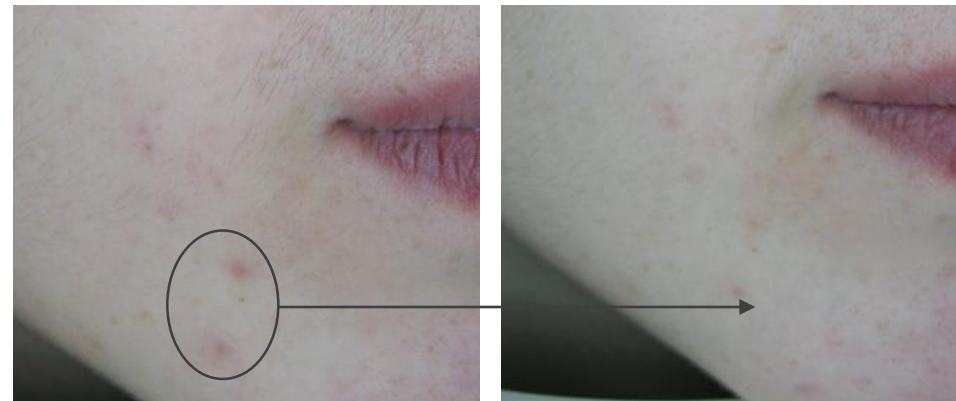
Results on  $\geq 25$  years old



D0

D29

Volunteer no. 22  
Female - Age 34



D0

D29

Volunteer no. 4  
Female - Age 22



D0

D29

Volunteer no. 8  
Female - Age 25

# Removal of skin redness



- 1 • **Protocol**  
Chromametric measurements of parameter a\*.
  - **Results** after 29 days of use :  
- 4,2%\* (up to – 22%)
  
- 2 • **Protocol**  
Clinical scoring of the “redness of the skin” through a 10-degree visual scale by the dermatologist.
  - **Results** after 29 days of use :  
- 11,5%\* (up to – 50%)



\* vs D0, significant with  $p < 0,05$  – Student's test. - Placebo : no significant effects.

# Removal of skin redness

AVERAGE  
- 11,5%\*

UP TO  
- 50%

1%  
Dose



D0



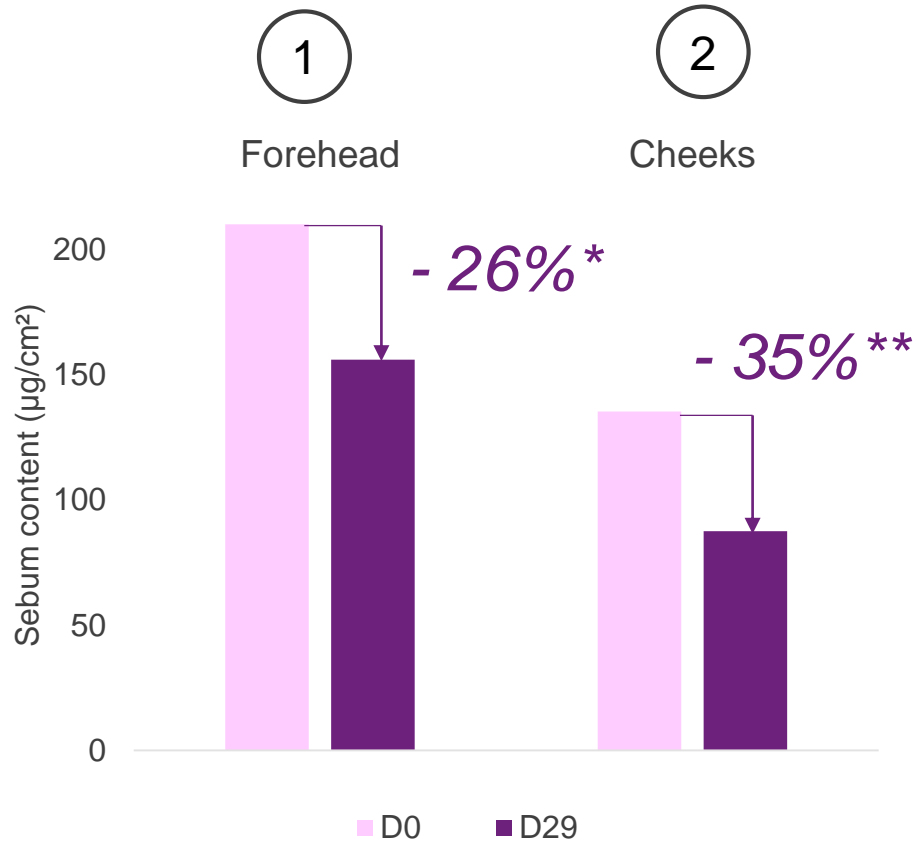
D29

Significantly reduces the red  
inflammatory aspect.

Suitable for blemished-sensitive  
and reactive skins

Clinical scoring of the "redness of the skin" through a 10-degree visual scale (D29 vs D0) - \* vs D0, significant with  $p < 0,05$  – Student's test.

# Reduction of sebum



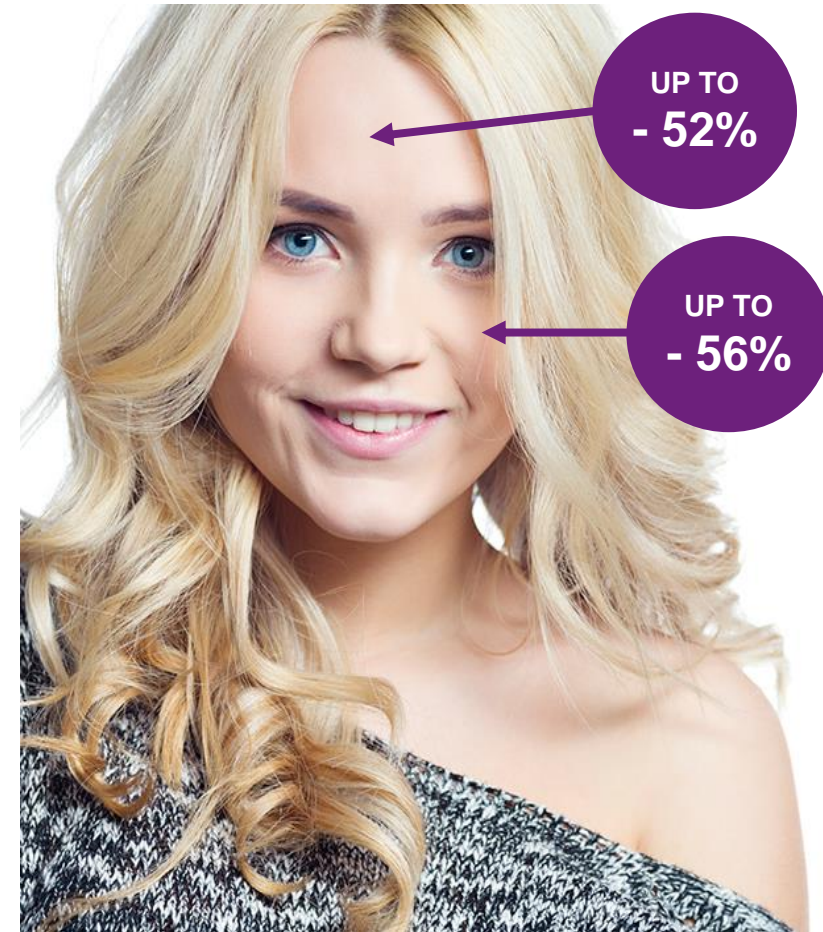
- Protocol

Measurement of sebum level on the cheeks and forehead at D0 and D29.

- Results

After 29 days of 1% CLEAR Oléoactif® cream application, a significant decreases in the levels of sebum was observed on the forehead and on the cheeks.

Reduces the skin sebum, responsible for oily skin appearance.

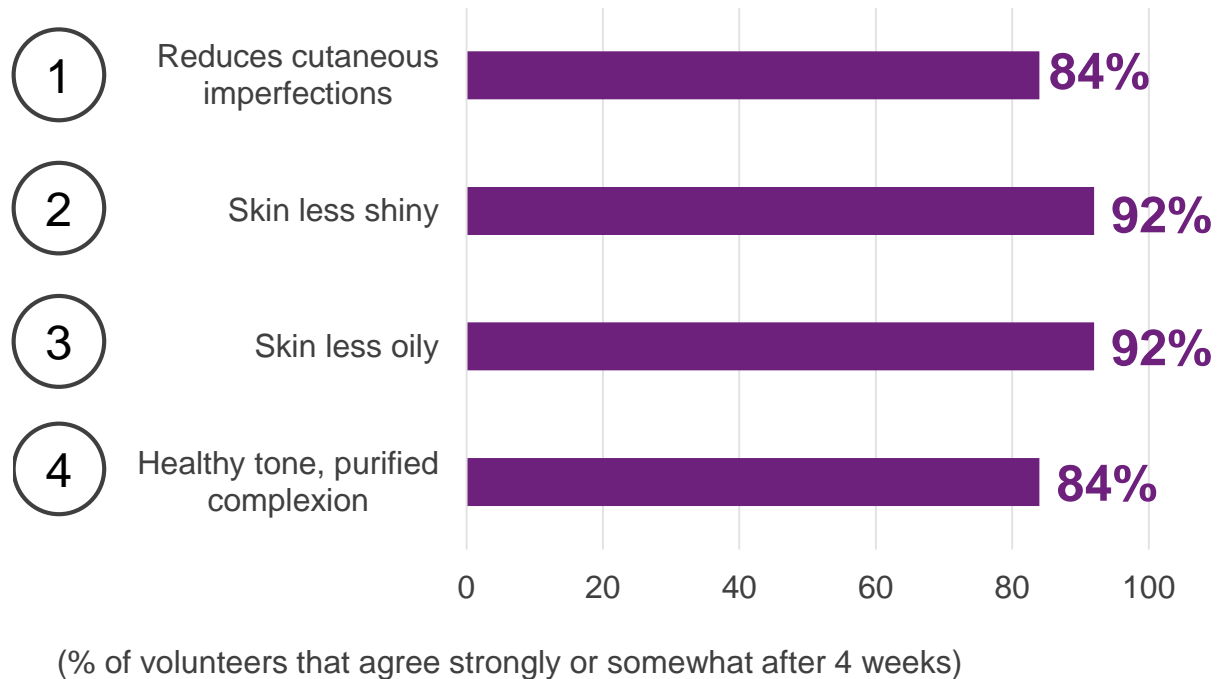


Student's test : \* vs D0, significant with  $p < 0,05$ . \*\* vs Do, significant with  $p < 0,05$ , and vs placebo, significant with  $p < 0,05$ .

# Self-evaluation



- Benefits noted by the 25 panelists



- General appreciation

No impact on texture or aspect.

Increase the skin penetration speed.

- Comparison to their usual anti-blemish products

100% of the panelists found their skin “just as good” to “better”.

57% found that the investigational product is **more efficient.**

Promotes clear skin with a strong effect on the 4 mains clinical signs of imperfections.

# SOURCING AND PROCESS



# Thyme, the perfect plant

- Typical of **South of France**
- « **Garrigues** » are renowned for their remarkable biodiversity.
- Researchers of Montpellier have shown that the thyme is able to **adapt to climate change** [4].
- **Vital role for the bees.**
- “Nurse” plant.
- We selected *Thymus vulgaris* after a screening to guarantee an optimal efficacy.
- Its compounds have shown **anti-inflammatory, antioxidant, antibacterial** [7], [8] [9], and **antifungal properties** [5], [6].
- **Ideal for anti-blemish treatment !**



# Local and responsible

- Crop site ↔ Oléos = 45 km
- Sourced in the region of the “Pic-Saint-Loup”
- 100% wild
- Organic

## Ecological and social responsible practices :

- Valorization of a coproduct
- Crops that require no irrigation
- Manual harvesting method based on local traditional knowledge.
- Fair remuneration of harvesters
- Preservation of the traditional harvesting activity



# Biodiversity compliance - NAGOYA

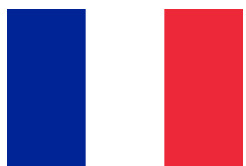
- **THE FIRST** french Genetic Ressource to get the 3 levels of compliance :

1. **National** (French ABS law)
2. **International** (NAGOYA protocol)
3. **European** (Regulation (EU) 511/2014)



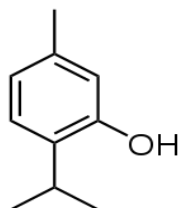
# CLEAR Oléoactif®

- Oléo-éco-extraction

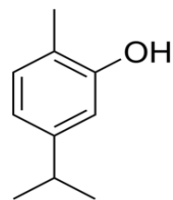


100%  
organic

- Camelina oil -  $\omega 6/\omega 3$
- 2 specific polyphenols well known for their powerful antioxidant activities and biological properties.



Thymol



Carvacrol

- Extraction yields > 90%



# SUMMARY

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# Technical information

**INCI name** Camelina sativa seed oil (and)  
Thymus Vulgaris Flower/Leaf/Stem  
Extract

**Biomarker** Polyphenols

**Appearance** Homogenous, liquid, from dark green  
to green-brown

**Solubility** Liposoluble

**Recommended pH** 3 - 10

**Allergens** Does not contain any allergen  
requiring labelling

**Dosage** 1% - 5%

**Compliance**



# CLEAR Oléoactif®

THE THYME OF THE PERFECT SKIN IS COMING !

Global efficacy  
at low dose (1%)  
Clinically proven

**Anti-imperfection**

Removal of skin redness

Sebum reduction

Validated  
mechanisms of  
action



**NAGOYA  
compliance**

**100%  
Organic & French**



COSMOS  
CERTIFIED

For women and men  
For teenagers and adults

**HALLSTAR**  
BEAUTY

# References

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- [2] Jean Krutmann and al., Pollution and acne: is there a link?, *Clinical, Cosmetic and Investigational Dermatology*, 19 May 2017.
- [3] Whitney P Bowe and al., Clinical implications of lipid peroxidation in acne vulgaris: old wine in new bottles, *Bowe and Logan Lipids in Health and Disease* 2010, 9:141.
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- [8] Antonia Nostro and al., Effects of oregano, carvacrol and thymol on *Staphylococcus aureus* and *Staphylococcus epidermidis* biofilms, *Journal of Medical Microbiology* (2007), 56, 519–523.
- [9] Mei-Lin TSAI and al., Antimicrobial, Antioxidant, and Anti-Inflammatory Activities of Essential Oils from Five Selected Herbs, *Biosci. Biotechnol. Biochem.*, 75 (10), 1977–1983, 2011.
- [10] Premysl Landa and al., *In vitro* Anti-inflammatory Activity of Carvacrol: Inhibitory Effect on COX-2 Catalyzed Prostaglandin E2 Biosynthesis, *Arch Pharm Res Vol 32, No 1, 75-78, 2009*.
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- [12] Mary Ellen Stewart and al., Dilutional Effect of Increased Sebaceous Gland Activity on the Proportion of Linoleic Acid in Sebaceous Wax Esters and in Epidermal Acylceramides, *THE JOURNAL OF INVESTIGATIVE DERMATOLOGY*, VOL. 87. NO.6 DECEMBER 1986.
- [13] Uwe Schippmann and al., Impact of Cultivation and Gathering of Medicinal Plants on Biodiversity: Global Trends and Issues, Food and Agriculture Organisation. Récupéré le 16 avril 2010 du site <http://www.fao.org/docrep/005/AA010E/AA010e00.htm>.



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WONDERS<sup>®</sup>

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