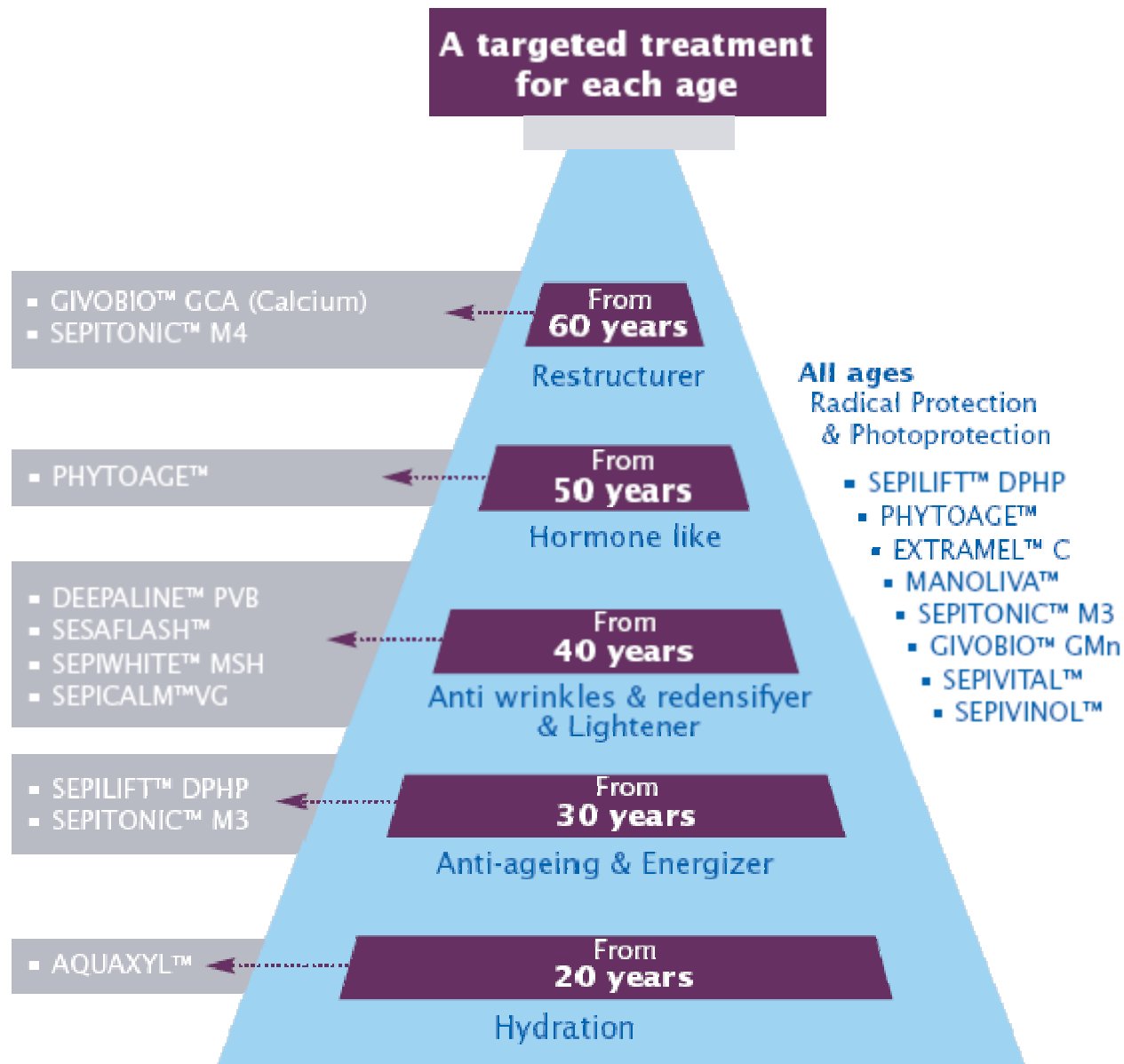




# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS



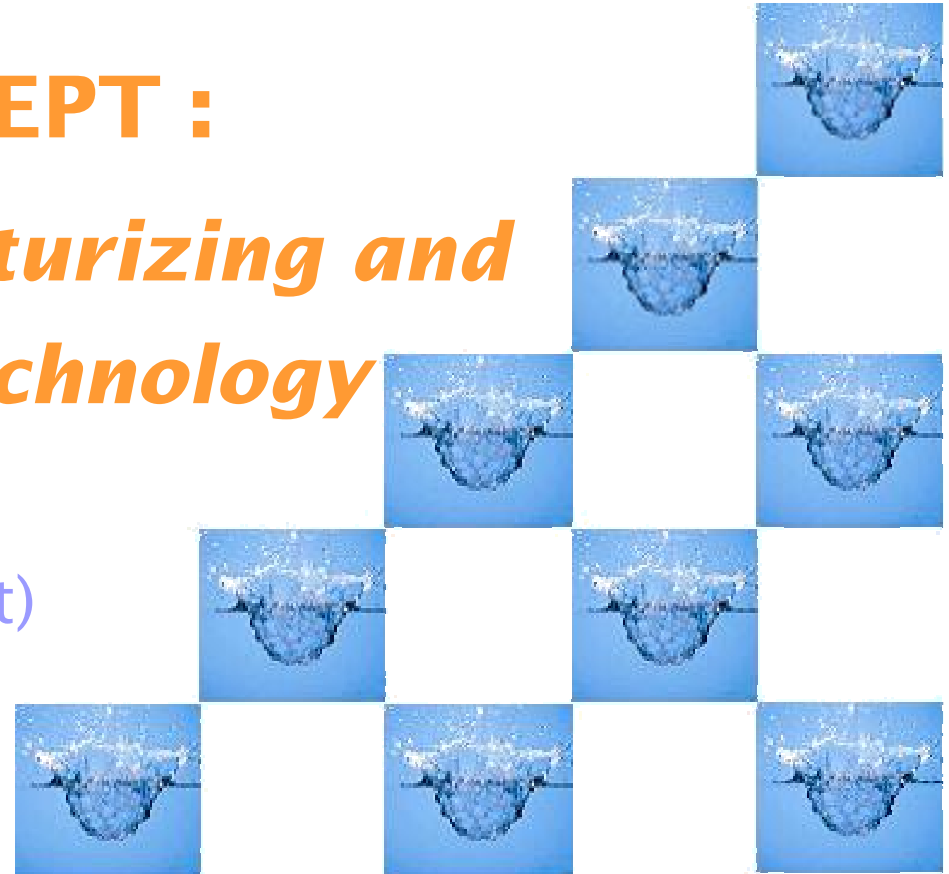


# AQUAXYL™

## HYDRACONCEPT :

*An innovative « moisturizing and restructuring » technology*

(SEPPIC patent)



## Glucose

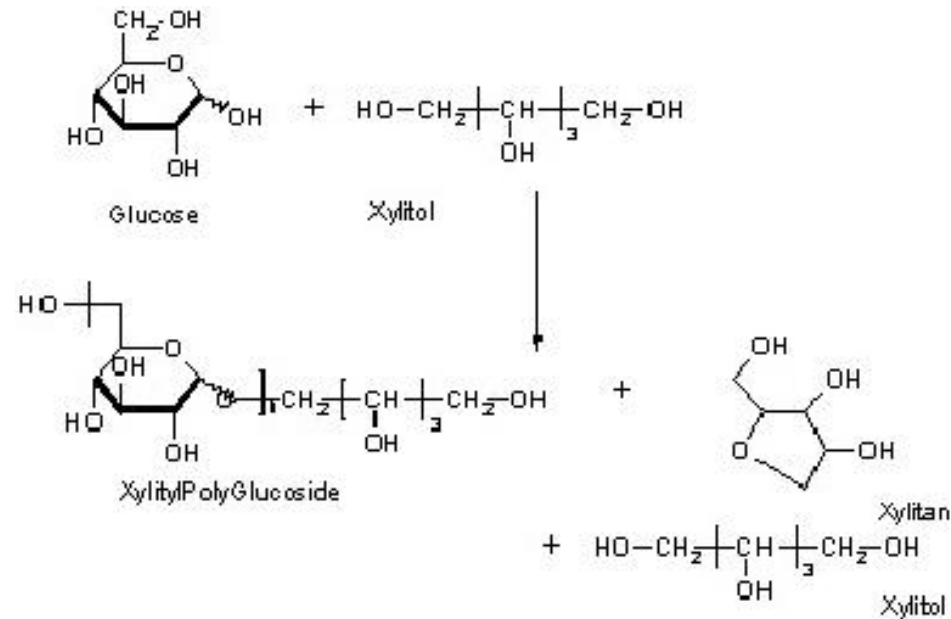
(vegetable origin, wheat)

## Xylitol

(vegetable origin, wood)

### Xylitylglucoside + anhydroxylitol + Xylitol

REACTION :



**INCI name : Xylitylglucoside and anhydroxylitol and xylitol**





AQUAXYL™

# Harmonization of Skin's Hydrous Flow - HYDRACONCEPT

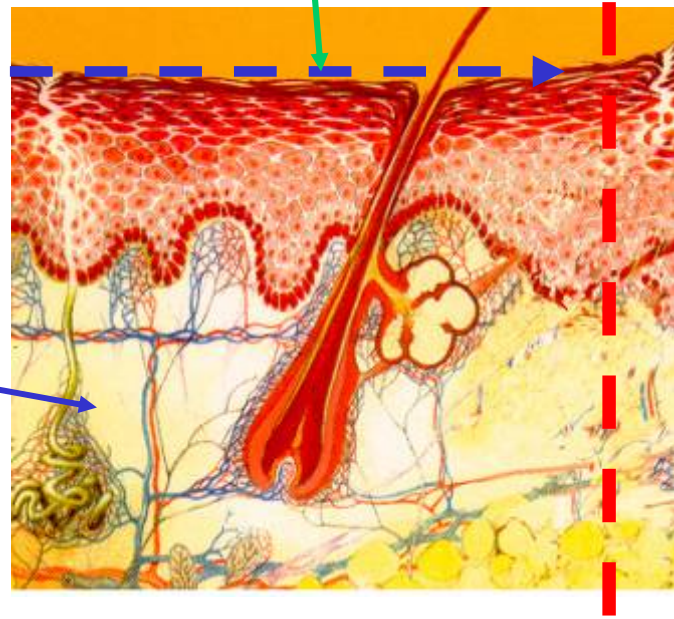
**3. Visual improvement of skin surface** (normalization of desquamation & smoothing of microrelief - *in vivo*)

**1. Increase of WATER RESERVES**

**2. Decrease of WATER LOSS**

**1.2 increase of Epidermal Water Content** ( $\nearrow$  of electrical conductance - *in vivo*)

**1.1 Increase of Dermal Water Reservoirs** ( $\nearrow$ GAGs - *in vitro*)



**2.1 Improvement of barrier function :** ( $\nearrow$ ceramide synthesis - *ex vivo*)

**2.2 Decrease of Trans Epidermal Water Loss** ( $\searrow$ TEWL- *in vivo*)

A new strategy for a perfect moisturized and restructured skin



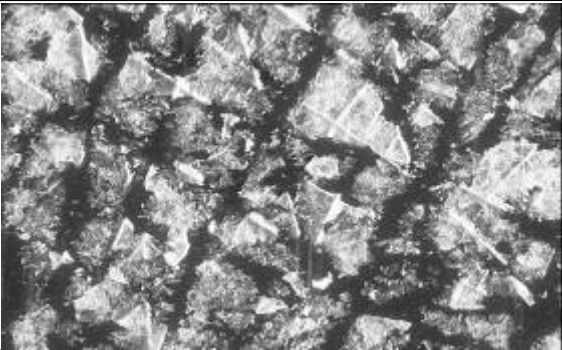
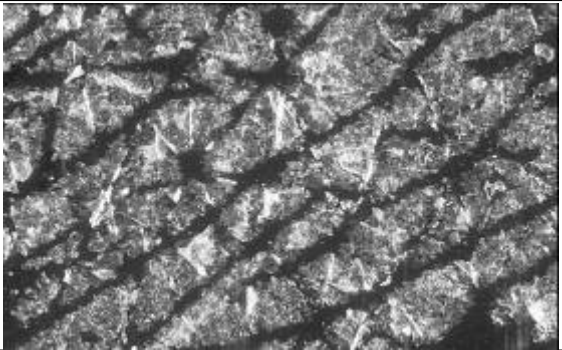


# AQUAXYL™

## Harmonization of Skin's Hydrous Flow - HYDRACONCEPT

### 3. Visual improvement of skin surface (*in vivo*)

#### 3.1 Desquamation normalization and skin microrelief smoothing

<b>Corneocytes removal (D squames) at D30</b>	
<i>1 month treatment with placebo</i>	<i>1 month treatment with placebo + 3% AQUAXYL (6925 formula)</i>
	
<i>+ 25% improvement of desquamation with 3% AQUAXYL compared to the placebo (visual score)</i>	

*From the first month of treatment, AQUAXYL normalizes the desquamation*

**The skin is visibly moisturized**





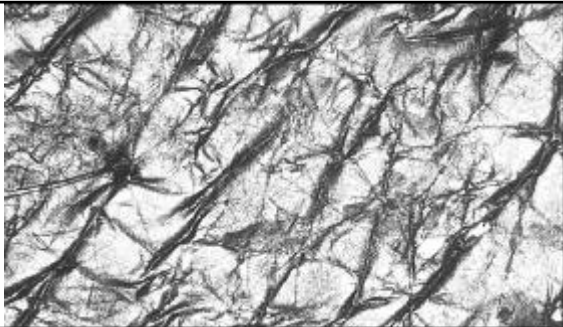
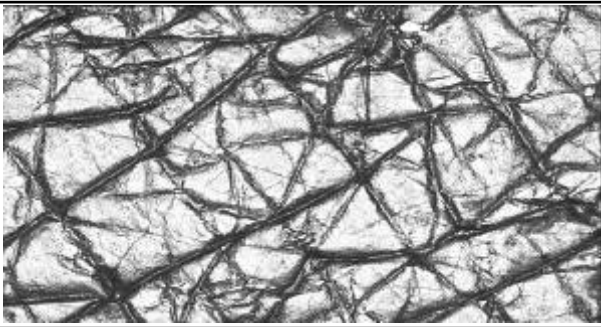
# AQUAXYL™

## Harmonization of Skin's Hydrous Flow - HYDRACONCEPT

### 3. Visual improvement of skin surface (*in vivo*)



3.2 Skin microrelief smoothing => direct print with cyanoacrylate

<b>Skin prints at D30</b>	
<i>1 month treatment with placebo</i>	<i>1 month treatment with placebo + 3% AQUAXYL (6925 formula)</i>
	
<i>+ 30% of skin microrelief improvement with 3% AQUAXYL in comparison to the placebo</i>	

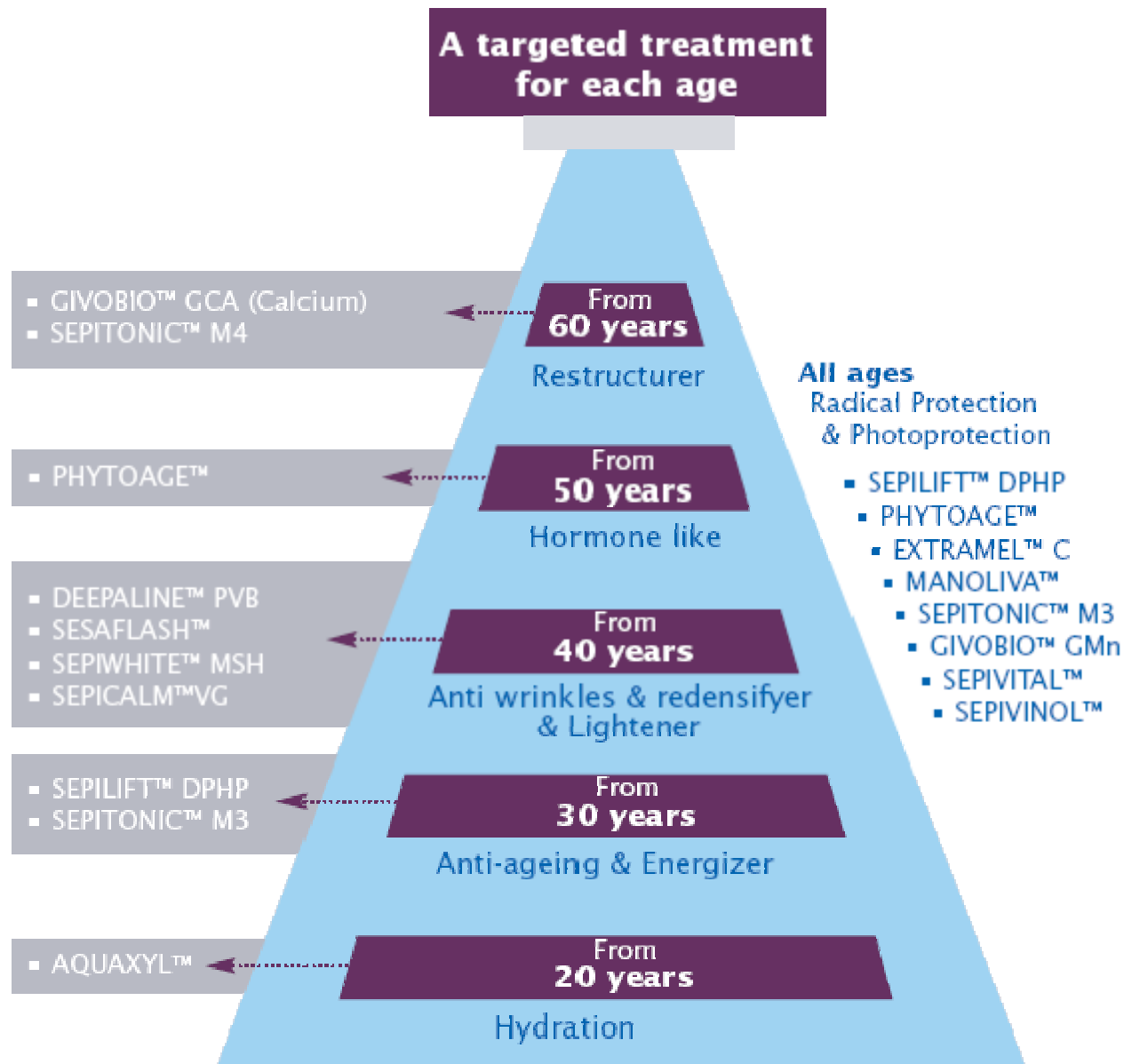
**From the first month of treatment, AQUAXYL reorganizes the skin microrelief . The barrier function is reinforced.**

**The skin is smoothed, visibly restructured**





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# SEPITONIC™ M3

*Multimineral chrono-energizer.  
An energetic battery to reload  
your cells !*



**Aspartate / Gluconate**

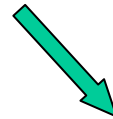
« **Intelligent** » **organic anions**

- Promote cations vectorization (make them Bio-Available)
- Real Biological efficacy (ATP – ADN)

**Copper/ Zinc/ Magnesium**

**Mineral Cations**

- Synergistic effect
- Enzymatic cofactors
- Reload the cells electrical potential (= electric battery)



**SEPITONIC®M3**  
**Cellular Chrono-Energizer**

*Essential mineral source for a good cellular energetic and bio-electric metabolism.*

**INCI name : Magnesium aspartate, Zinc gluconate, Copper gluconate**



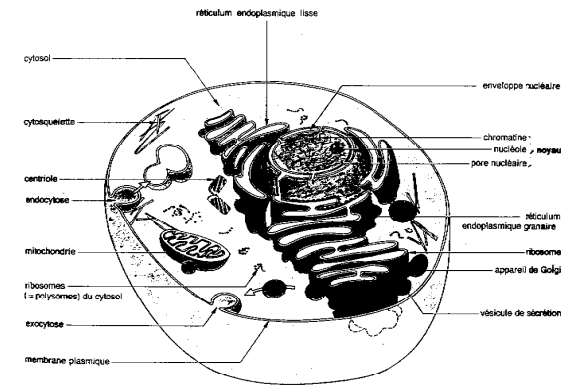


# SEPITONIC™ M3 : CELLULAR CHRONO-ENERGIZER

*SEPITONIC M3 mode of action: a trip in the « heart » of the cells ...*

## 1. Chrono-energizing effect :

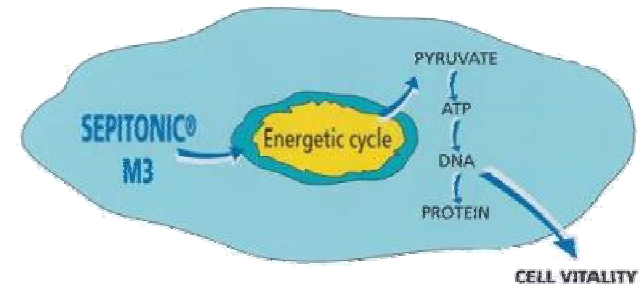
**SEPITONIC M3 chronologically stimulates the cells energy and metabolic mediators (ATP – ADN- Proteins) via a better respiration process. A new breath of pure oxygen !**



Plan d'organisation générale d'une cellule de l'organisme.  
(d'après Une vie, guide dans la cellule, C. De Duyn, 1982)

## 2. Actives Booster :

**In top conditions, the cells are BOOSTING the benefits of other actives !**

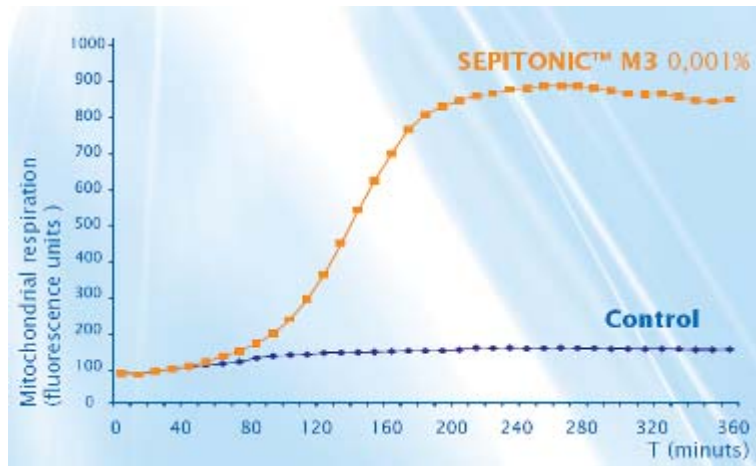




# SEPITONIC™ M3 : CHRONO-ENERGIZER

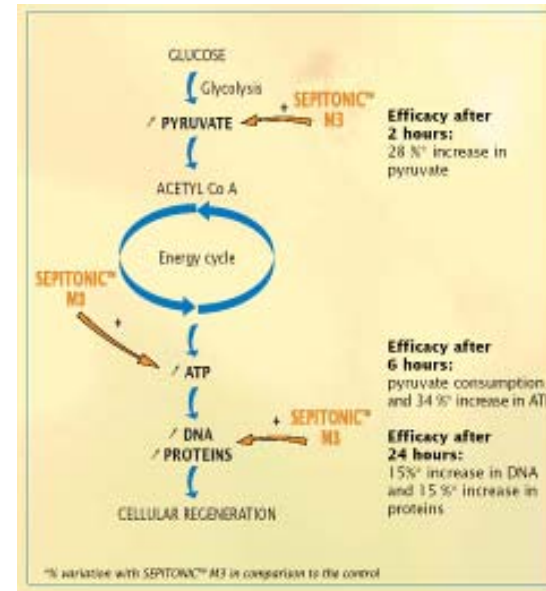
## 1. Chrono-energizing effect

### Test 1 : Stimulation of mitochondrial respiration



**Protocol:** Keratinocytes incubated with or without Sepitonic M3 => measurement of cells oxygen consumption = cells respiration in mitochondria (fluorescence).

### Test 2 : Stimulation of cellular Chrono-energy



**Protocol:** human normal keratinocytes incubated with **10 ppm Sepitonic M3** or 100 ppm Cytochrome C (= ref) or control => measurement of chronological synthesis of Pyruvate / ATP / ADN and Proteins

- M3 stimulates cellular respiration and prevents suffocation in the case of oxygen deficiency.**
- Chronological liberation of energy and biologic mediators** (2h: increase of pyruvate production ; 6h: ATP production ; DNA/PROTEINS synthesis / REGENERATION) - More effective than CYTOCHROME C
- M3 protects free radical cells that could be over produced during respiration process (Test 3: +79% radical scavenging effect/ control)**





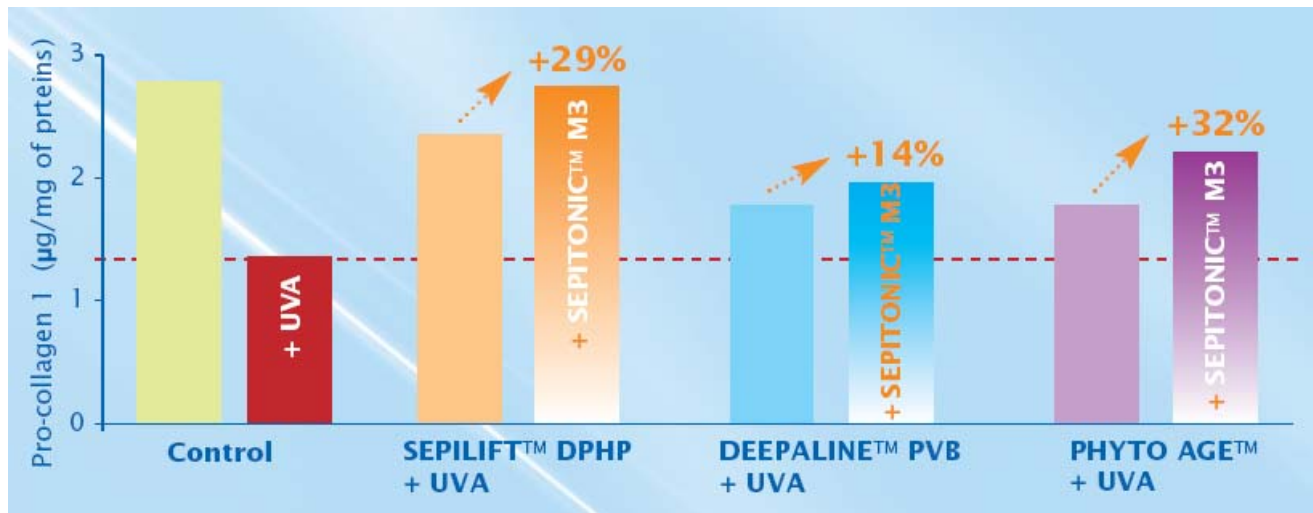
## SEPITONIC™ M3 : CELLULAR CHRONO-ENERGIZER

### 2. ACTIVES BOOSTER !

IDEAS FOR NEW APPLICATIONS !

### Test 3 : Anti Ageing Photoprotective effect “boosted” by Sepitonic M3 :

Protocol : dosage of **pro-collagène 1**. Test done on normal human fibroblasts incubated with **5 ppm Sepitonic M3** + **5 ppm other actives** : after 20J/cm<sup>2</sup> UVA irradiation.

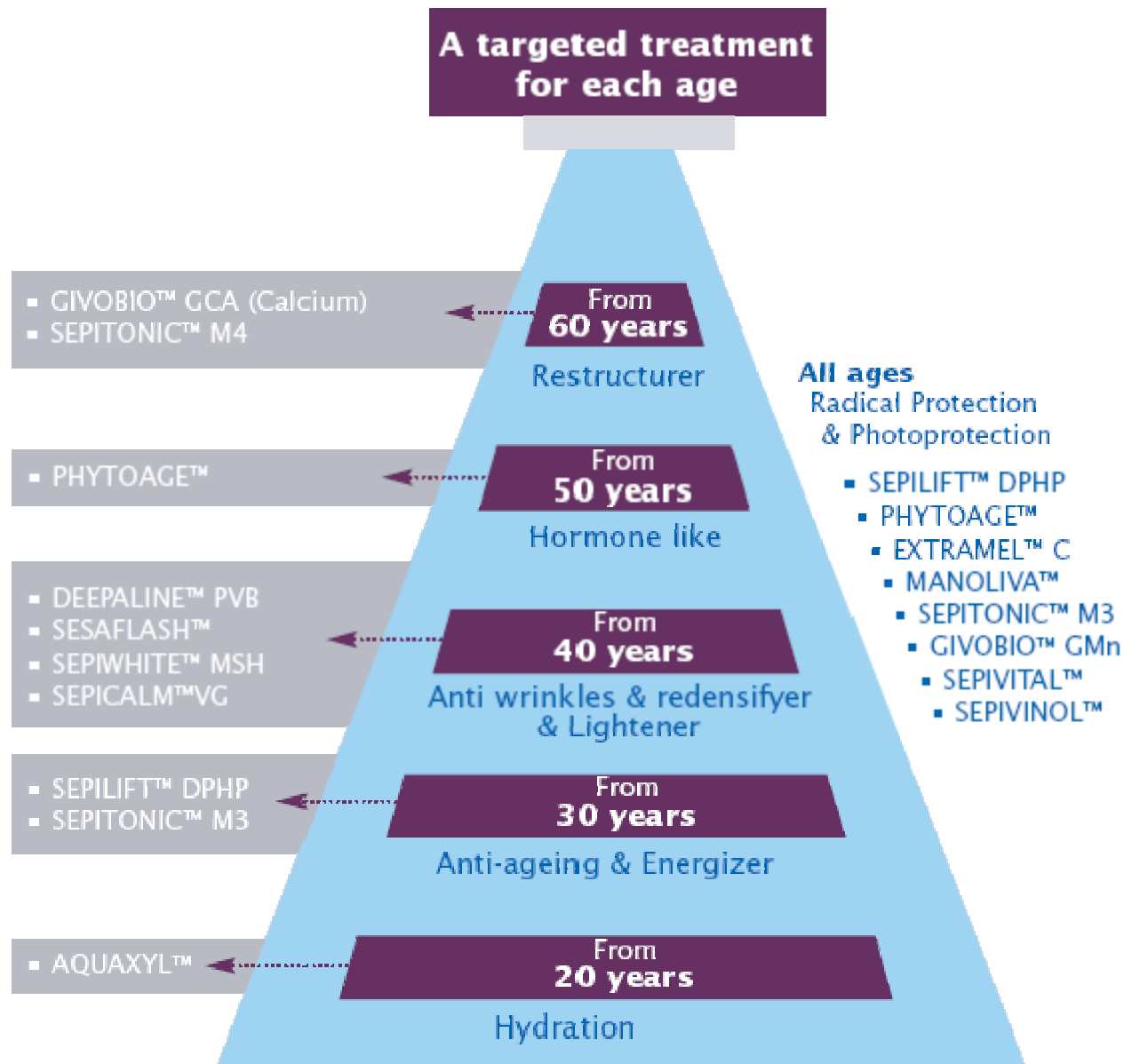


=> Thanks to a stimulation of the cellular metabolism, Sepitonic M3 increases the cutaneous benefit of other actives ingredients.





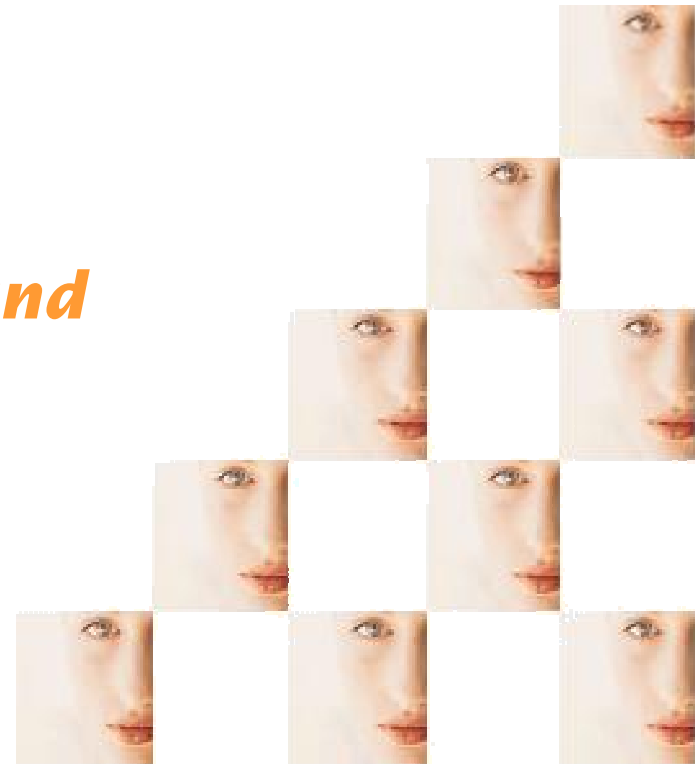
# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# SEPILIFT™ DPHP

*Triple firming action for  
rejuvenation, moisturisation and  
anti-age wrinkle prevention*





# SEPILIFT™ DPHP

- **Structure**

## Hydroxyproline

Collagen-specific aminoacid  
*(biotechnological derived)*

## Palmitic acid

*(plant-derived)*



SEPILIFT™ DPHP



## Hydroxyproline biovector

"wakes up" and rejuvenates the skin.

*INCI name: Dipalmitoyl Hydroxyproline*





# SEPILIFT™ DPHP

## Anti-ageing efficacy versus a reference on the market (*in vivo*)



### Method:

- *In vivo*: **20 volunteers** (average age: 56 years)
- Efficacy of **1% SEPILIFT DPHP versus placebo** and versus an **anti-age lipopeptide on the market (3%)**
- 2 applications/day
- **42 days of treatment on crow's feet**
- **Number of wrinkles:** analysis software

### D42 : anti-age at high performance – Formula 7071

<b>A</b>	• <b>LANOL™ P</b> ( <i>glycol palmitate - SEPPIC</i> )	1.50 %
	• <b>MONTANOV™ 202</b> ( <i>Arachidyl alcohol &amp; behenyl alcohol &amp; arachidyl glucoside - SEPPIC</i> )	2.00 %
	• <b>MONTANOV™ 82</b> ( <i>Cetearyl alcohol &amp; Coco-glucoside - SEPPIC</i> )	1.00 %
	• Squalane	7.00 %
	• Polyisobutene	13.00 %
	• <b>MONTANOX™ 60 DF</b> ( <i>Polysornate 60 - SEPPIC</i> )	0.50 %
	• Keltrol T	0.15 %
	• <b>SEPILIFT DPHP</b> ( <i>Dipalmitoyl Hydroxyproline - SEPPIC</i> )	1.00 %
<b>B</b>	• Water	Up to 100 %
	• Chlorphenesin	0.30 %
	• Glycerin	5.00 %
<b>C</b>	• <b>SEIPLUS™ 400</b> ( <i>Polyacrylate-13 &amp; polyisobutene &amp; polysorbate 20 - SEPPIC</i> )	1.00 %
<b>D</b>	• <b>SEPICIDE™ LD</b> ( <i>Phenoxyethanol - SEPPIC</i> )	0.70 %
	• Fragrance	0.10 %
	• TEA 50%	Up to pH = 5.5

➔ **Demonstrated efficacy in comparison to the placebo formula (same formula without active ingredient) and a reference lipopeptide on the market**

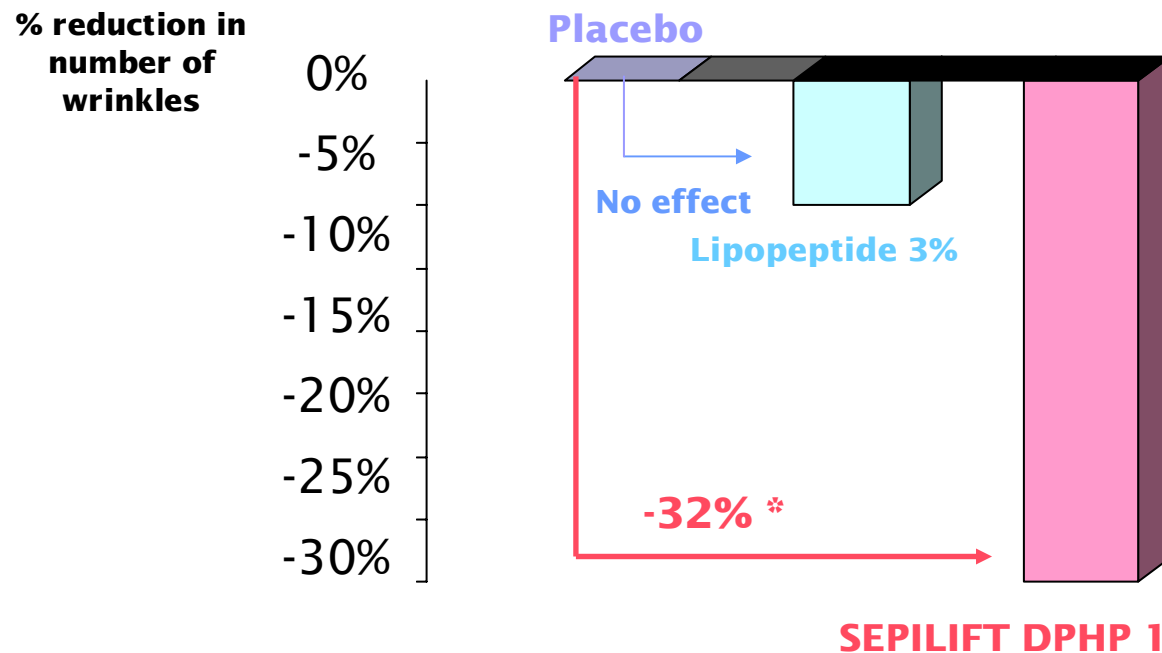




# SEPIlift™ DPHP

**Anti-aging efficacy versus a reference on the market (in vivo):**

**Efficacy of 1% SEPIlift DPHP versus placebo and an anti-aging lipopeptide on the market (3%) after 42 days of treatment**



**After treatment, 65% of volunteers having used the formula with SEPIlift DPHP showed a positive effect in comparison to placebo.**

\*: p<0.05

*Lipopeptide = Glycerin and Water and Butylene Glycol and Carbomer and Polysorbate 20 and Palmitoyl Oligopeptide and Palmitoyl Tetrapeptide-7*

**➔ Only the formula with 1% SEPIlift DPHP significantly reduces the number of wrinkles in comparison to placebo. No significant efficacy of the formula with 3% anti-ageing lipopeptide on the market in comparison to placebo**



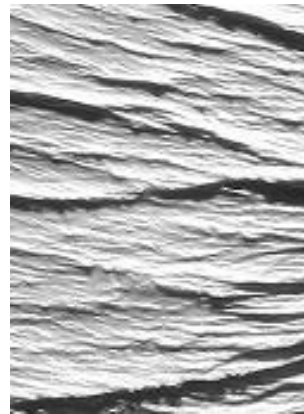
• **Sepilift™ DPHP efficacy on crow's feet wrinkles (in vivo)**

**IN VIVO METHOD :** - 20 subjects - 42 days of treatment on crow's feet wrinkles

- 1% SEPILIFT™ DPHP versus placebo and versus 3% of anti-wrinkle lipopeptide (reference on the market)

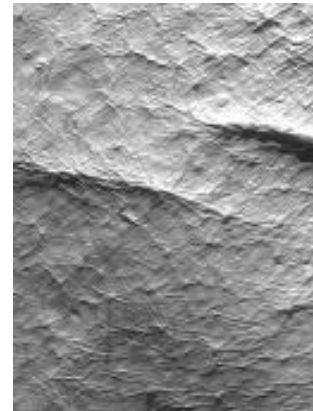


Day 0

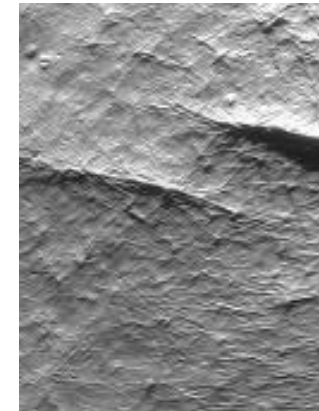


Day 42

**PLACEBO**



Day 0



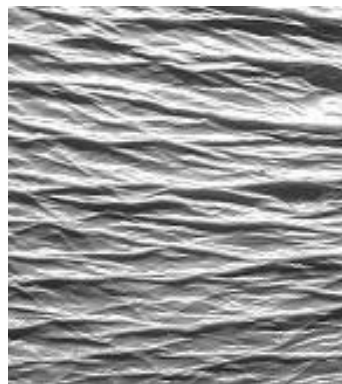
Day 42

**3% lipopeptide\* (reference on the market)**

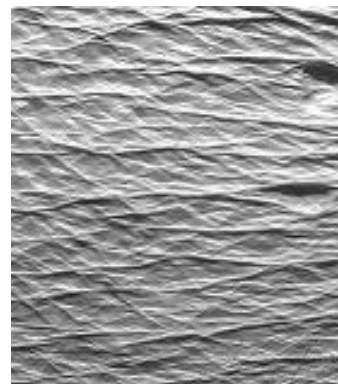
\* **Lipopeptide** = Glycerin and Water and Butylene Glycol and Carbomer and Polysorbate 20 and Palmitoyl Oligopeptide and Palmitoyl Tetrapeptide-7

**Results :** only 1% SEPILIFT DPHP is necessary to significantly decrease deep wrinkles (-32%) vs placebo

**No significant anti-wrinkle efficacy with placebo or with 3% lipopeptide (reference on the market).**



Day 0



Day 42

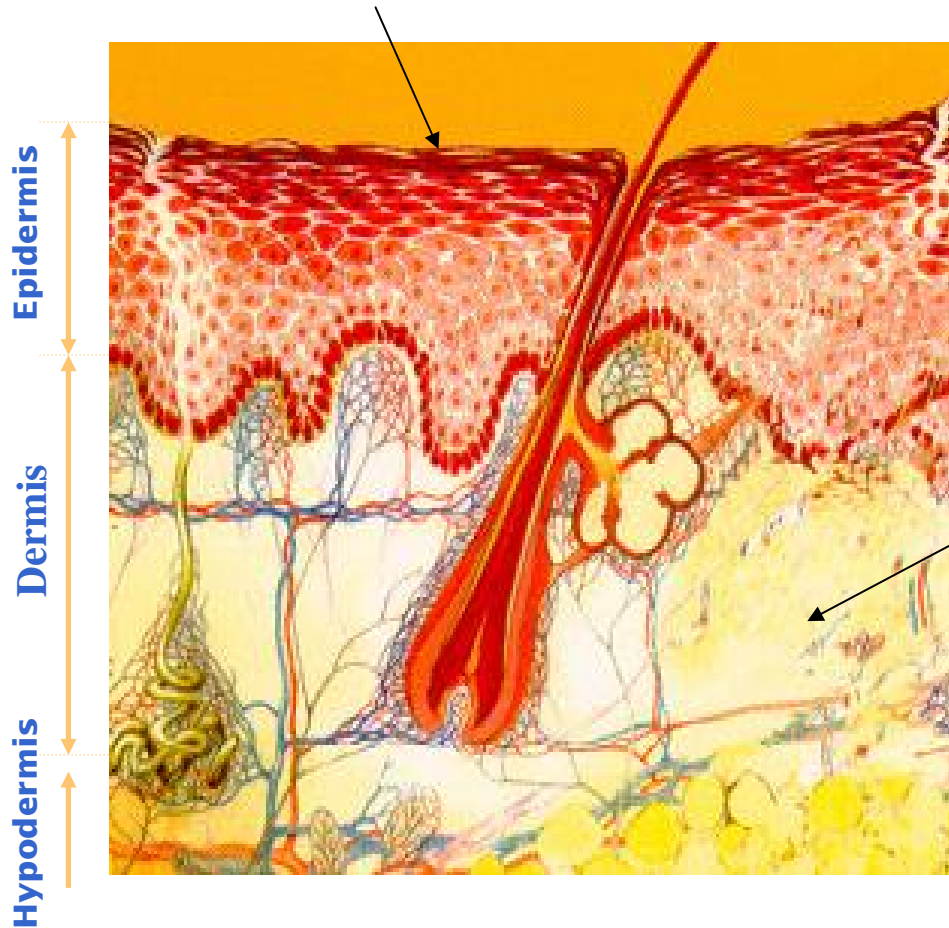
**1% SEPILIFT DPHP (formula 7071)**





# SEPILIFT™ DPHP against SKIN ALTERATIONS

## WRINKLES CORRECTOR & MOISTURIZER (Lips and Face)



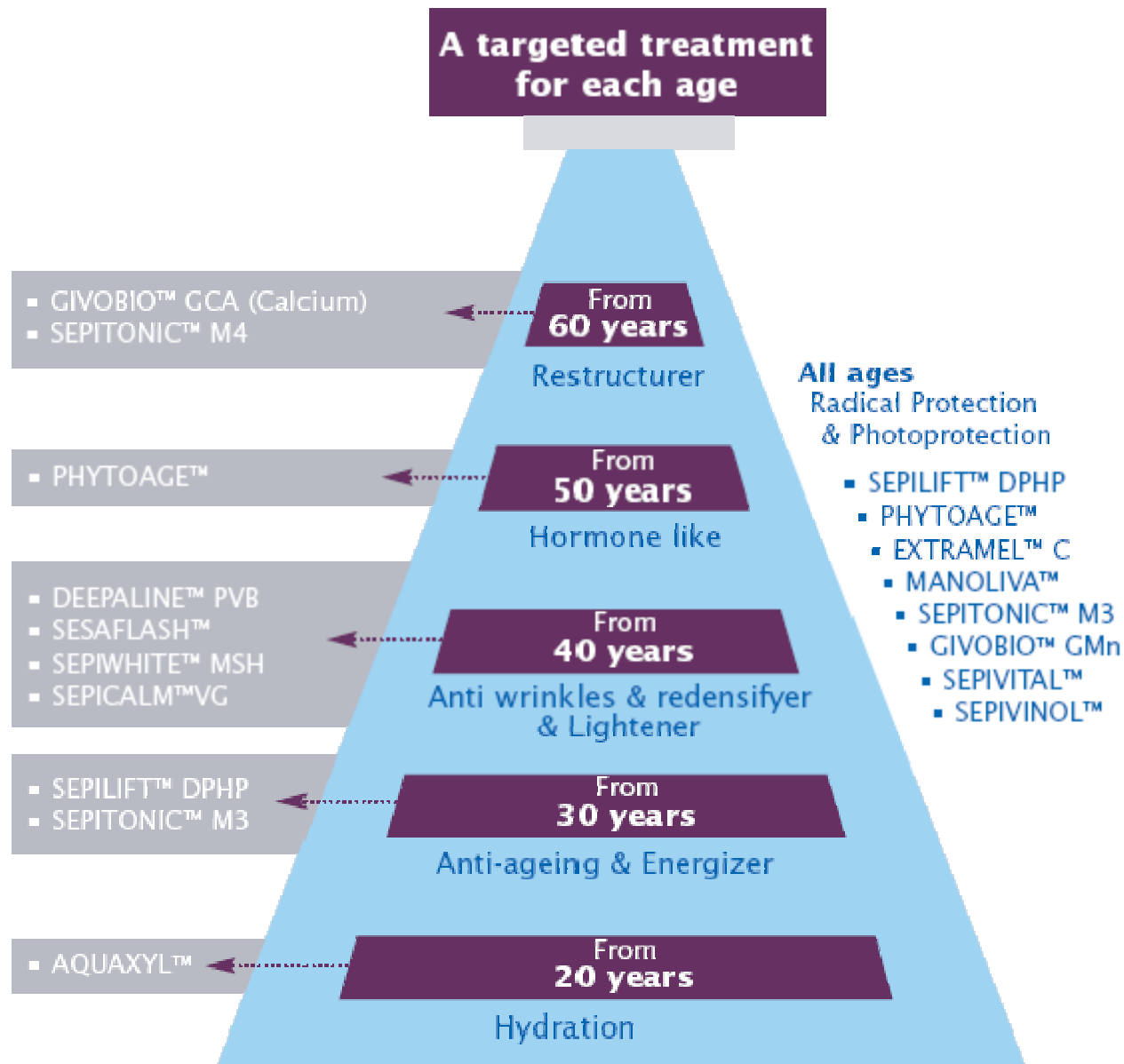
### COMPLETE ACTION ON DERMIS

- 1. Contraction of collagen fibers**  
+ 14% of collagen fibers contraction (0.001% DPHP)
- 2. Protection of elastic fibers**  
+ 81% anti-elastase effect (0.05% DPHP)
- 3. Radical scavenging effect**  
+ 85% inhibition of superoxyde anion (0.07% DPHP)
- 4. Stimulation of TIMPs, natural anti age inhibitors**  
+ 46% of TIMP2 stimulation by fibroblasts (0.0005% DPHP)
- 5. Inhibition of MMPs, enzymes responsible of skin ageing process**  
+ 94% of MMP2 inhibition by fibroblasts (0.0005% DPHP)
- 6. Protection of dermo epidermal matrix and collagen**  
+26% of pro-collagen 1 stimulation by fibroblasts (0.0005% DPHP), +61% of laminins stimulation by fibroblasts (0.0005% DPHP)





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# SEPIWHITE™ MSH

*An innovative skin lightening molecule,  
an original mode of action!*

*(SEPPIC Patent )*



# SEPIWHITE™ MSH STRUCTURE

**Undecylenic acid (C11)**

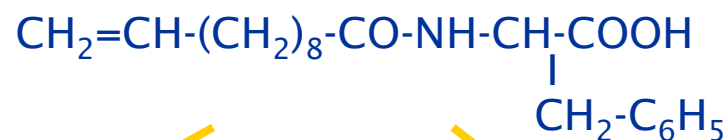
(lipophilic)

**Phenylalanine**

Essential aminoacid

(hydrophilic)

**Undecylenoyl phenylalanine**



**Amphiphilic structure**

=> Cutaneous bio affinity

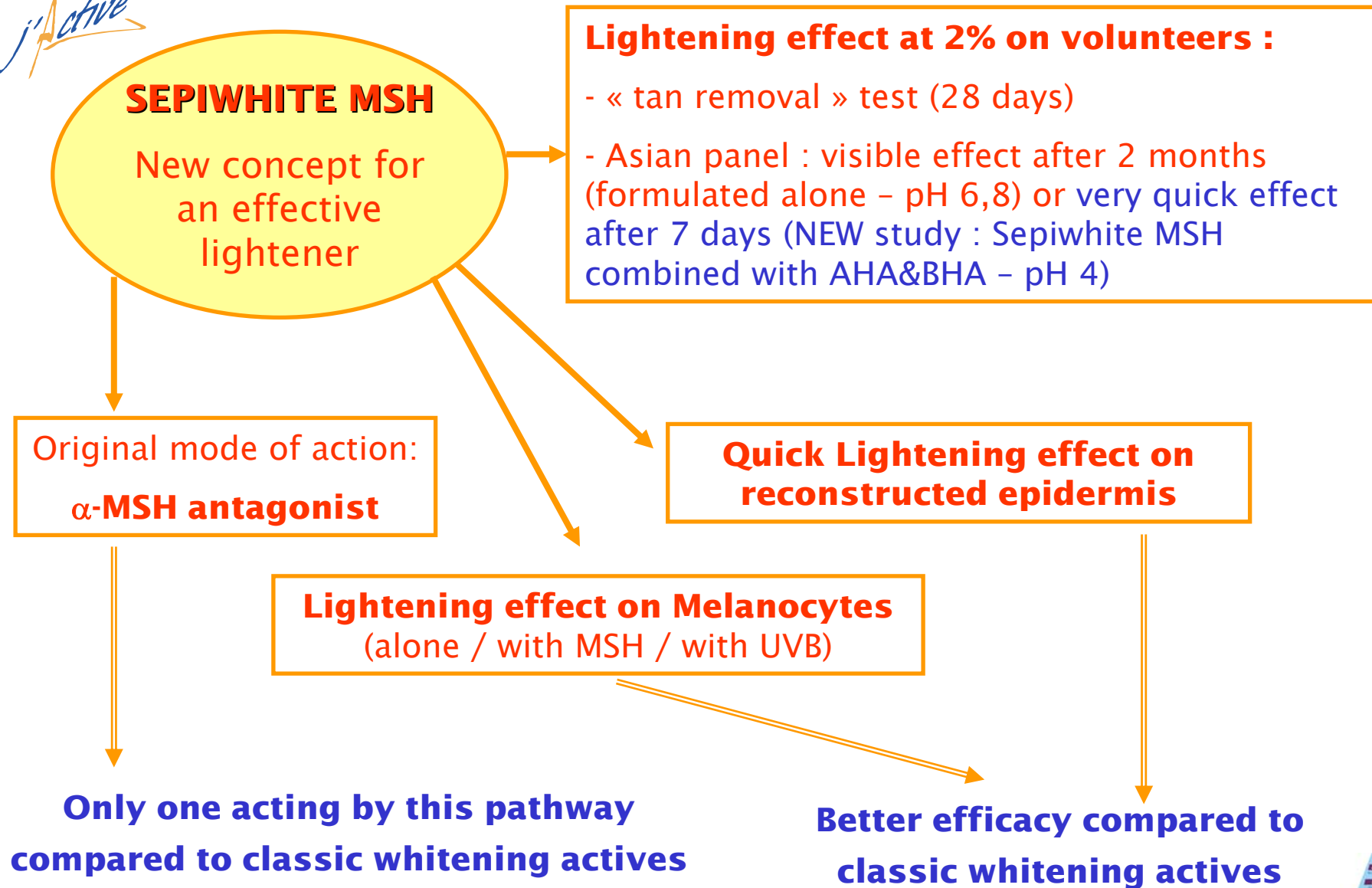
**Pure, stable, colorless** (white powder) **and defined molecule**

=> *Can be determined by GPC*

**INCI name : Undecylenoyl phenylalanine**

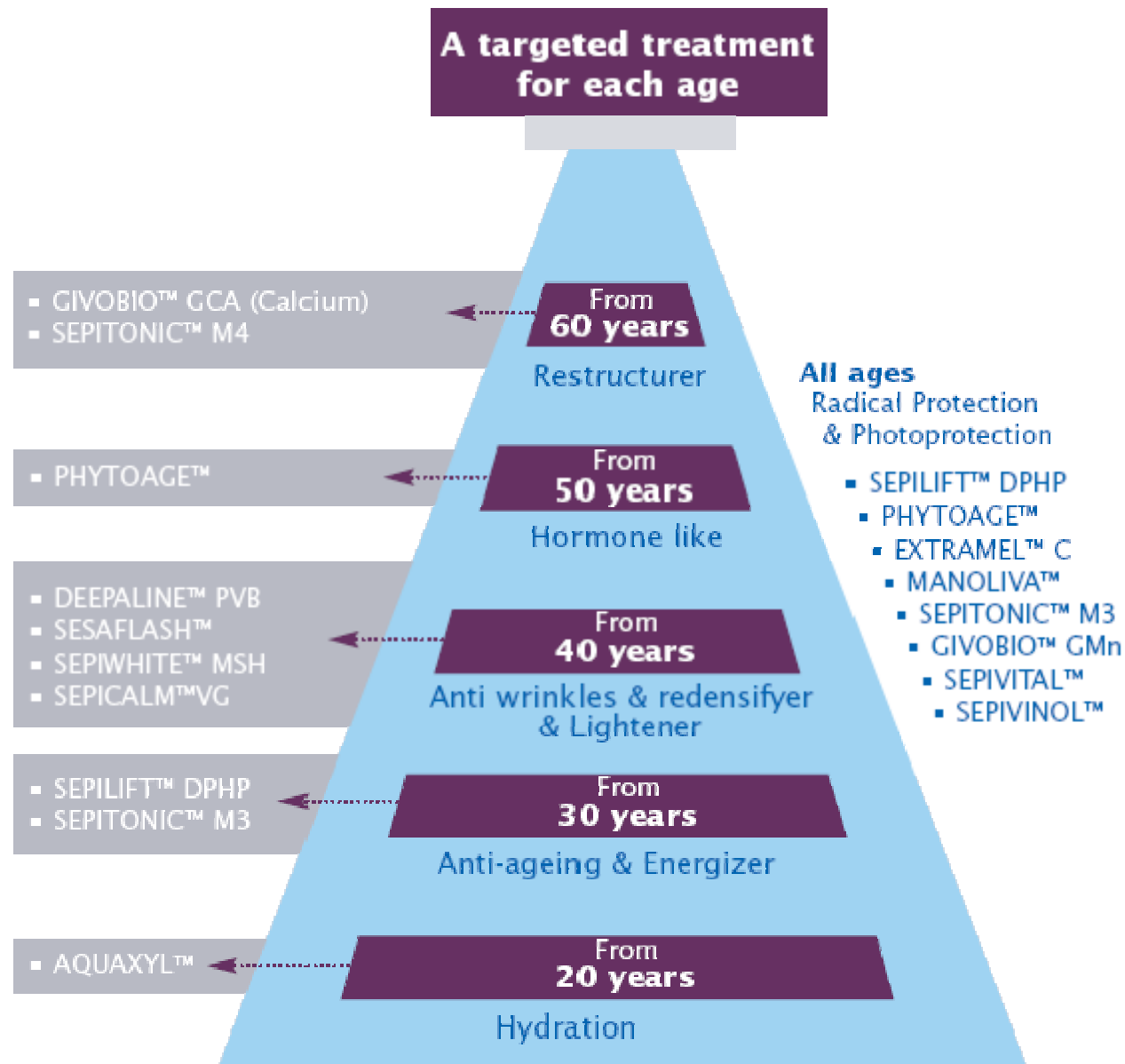


# SEPIWHITE™ MSH LIGHTENING EFFICACY - SUMMARY





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# SEPICALM™ VG

*A new lightening mode of action*

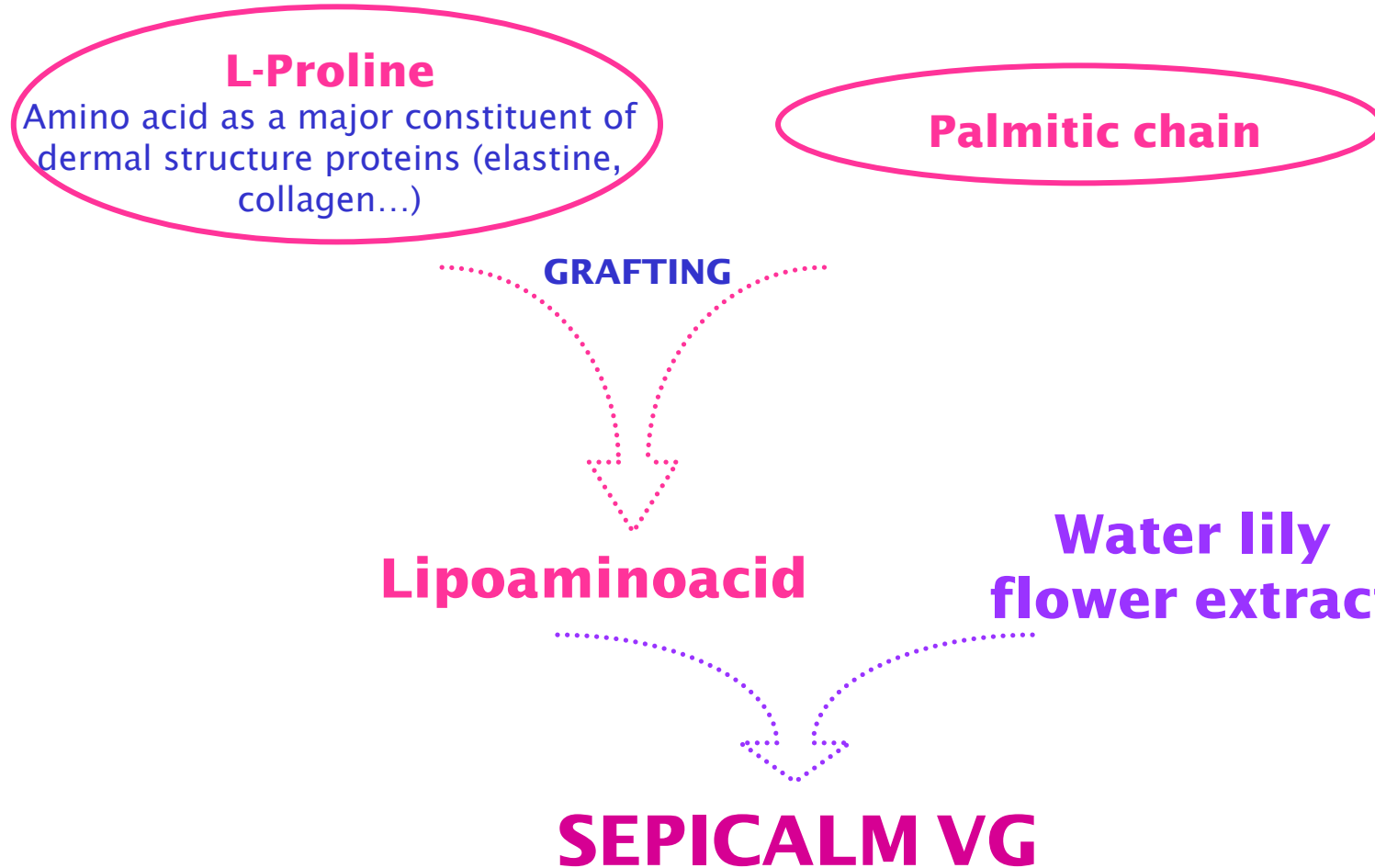
*So White, So Calming  
and So easy to use !*

*SEPPIC Patent*





# SEPICALM VG : structure A NEW GENERATION OF LIGHTENER



**INCI name: *sodium palmitoylproline and nymphaea alba flower extract***

**⇒ SEPICALM VG WP: grade without preservatives**



# SEPICALM VG A NEW GENERATION OF LIGHTENER

## SEPICALM VG

### Association of Palmitoylproline with a Water Lily Flower Extract for a NEW GENERATION OF LIGHTENERS

#### 1. So White ...

**POLYVALENT  
EFFICACY**

**New concept and new  
mode of action**

Decreases pigmentation  
induced by INFLAMMATION  
or AGEING

*In vitro & in vivo tested*

#### 2. So Calming ...

WELL  
**TOLERATED**  
and ADAPTED  
TO SENSITIVE  
SKINS

Soothes

#### 3. So easy to use...

**VERY EASY TO  
FORMULATE**

Stable, not colored



*Inci name : sodium palmitoylproline and nymphaea alba flower extract*

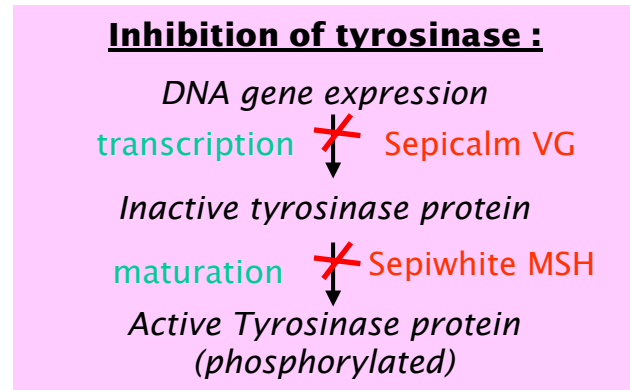
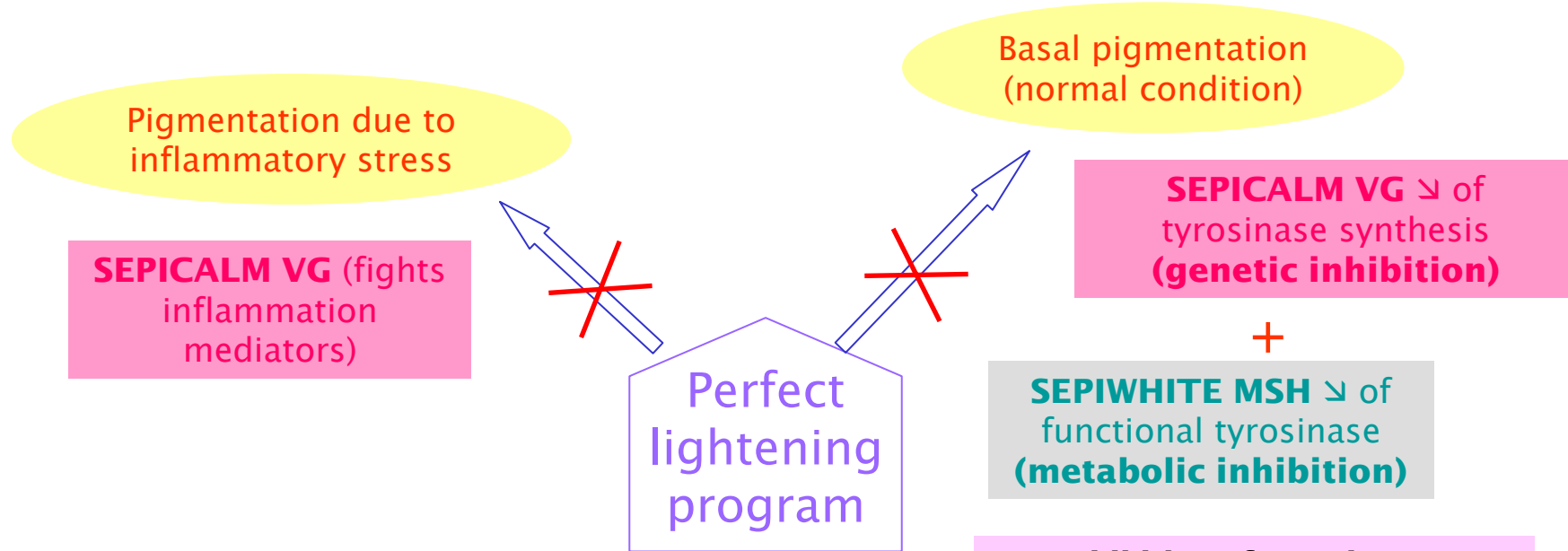




# SEPICALM VG

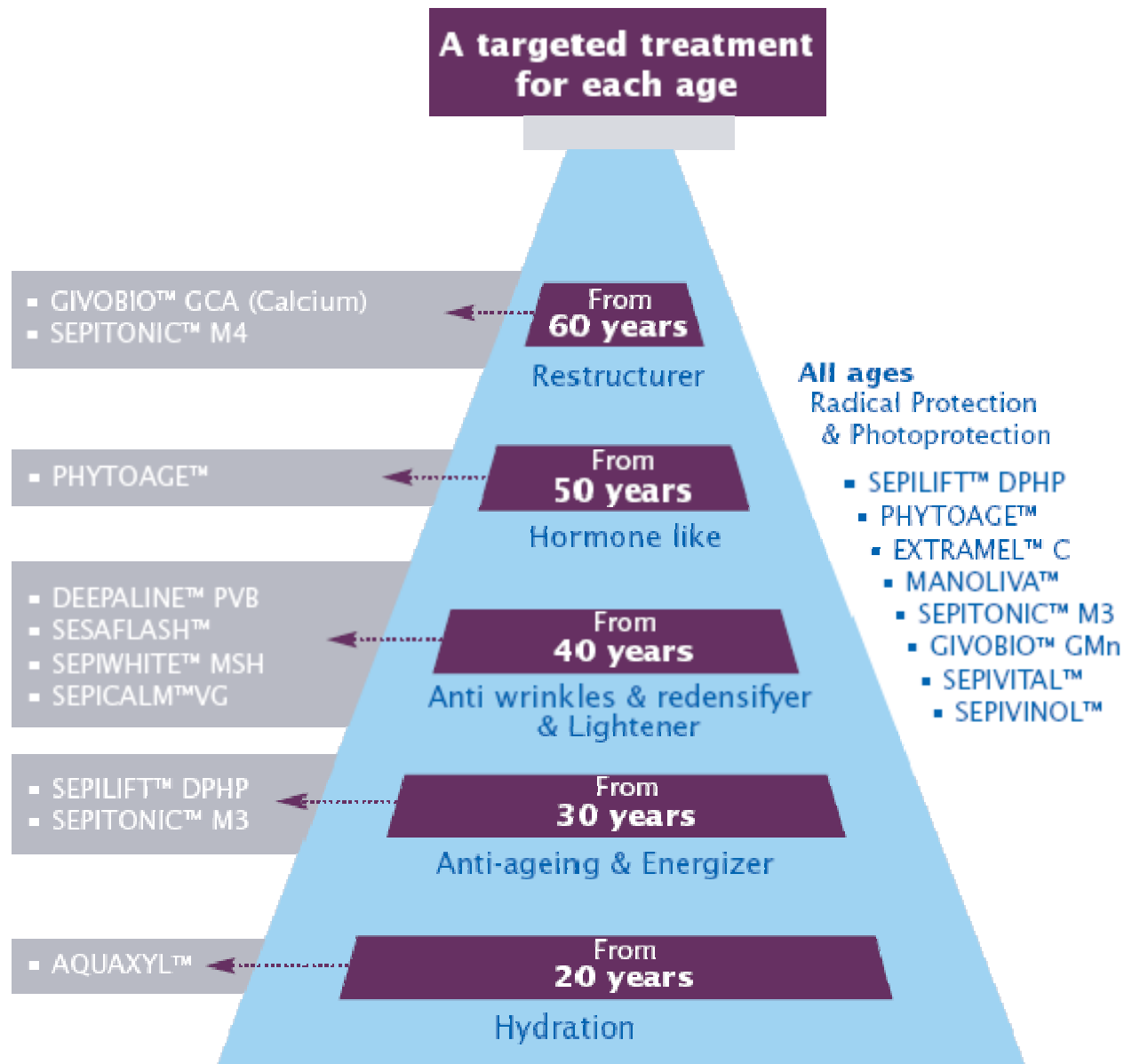
## FUTURE : ASSOCIATIONS FOR A PERFECT LIGHTENING FINISHED PRODUCT

### Necessity to fight against different causes of pigmentation to develop a perfect finished product





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# SESAFLASH™

*Instant Tightening and Moisture  
from Sesame.*

*Try it, Feel it, Approve it !*

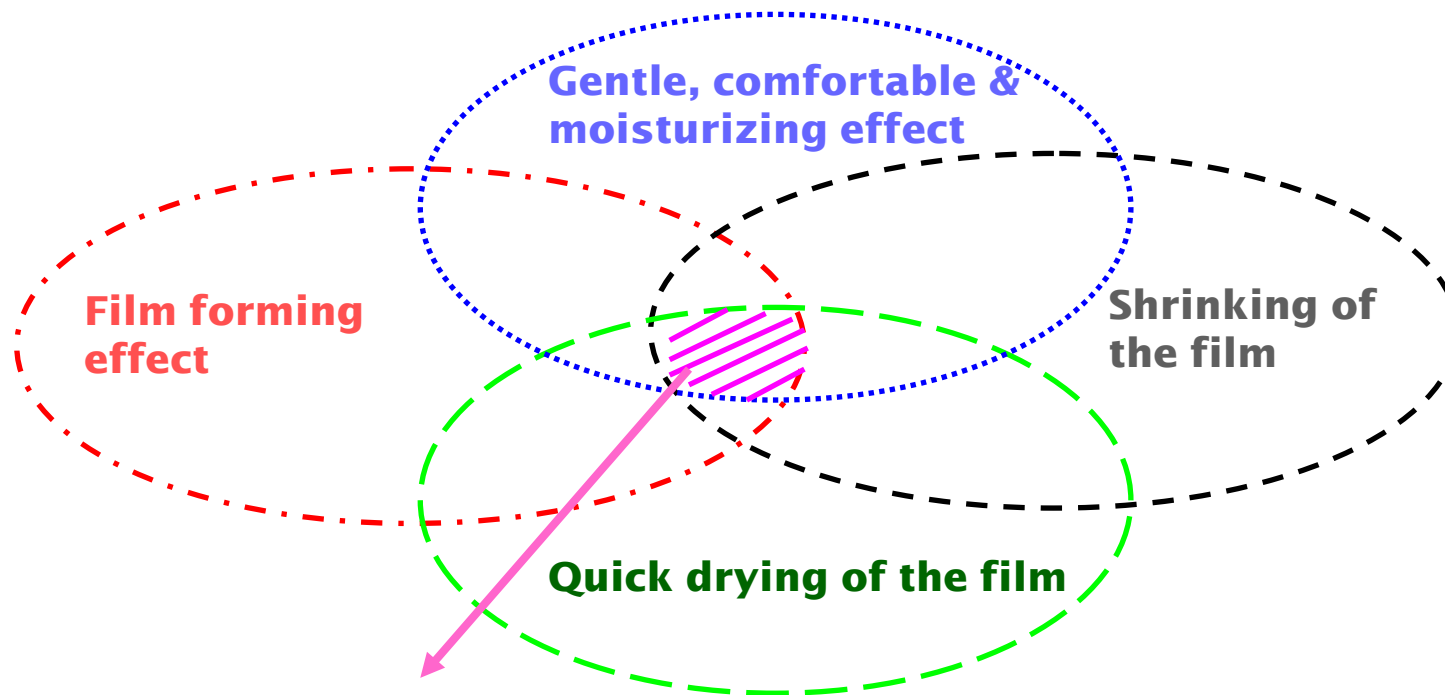
SEPPIC PATENT





## STRUCTURE OF SESAFLASH™

- **SesaFlash : an original molecular association coming from our expertise in polymer, biology and formulation :**



**SESAFLASH**  
Efficient and easily  
incorporated in formulae

**SEPPIC Patent**

***Registered INCI Name : Glycerin & Acrylates copolymer & VP/polycarbamyl Polyglycol Ester & Hydrolyzed Sesame Protein PG-Propyl Methylsilanediol***





## SESAFLASH™ : IMMEDIATE TIGHTENING EFFECT

### 1. Quick smoothing effect on the skin's micro relief - Clinical Proof

#### Immediate & VISIBLE anti wrinkles effect :

- **SesaFlash diluted at 10% in water**
- **20 women** (average age : 47 years old)
- Application : once
- Application area : **Crow's feet (deep wrinkles)**



Before application



5 minutes after the application  
**10% SesaFlash diluted in water**





# SESAFLASH™ : IMMEDIATE TIGHTENING EFFECT

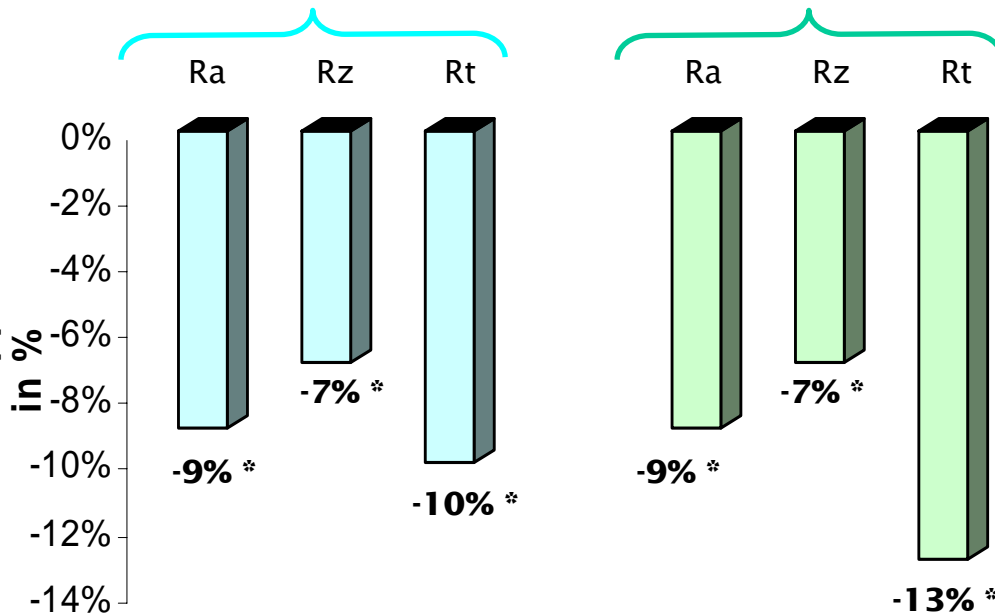
## 1. Quick smoothing effect on the skin's micro relief - Clinical Proof

### Immediate Anti Wrinkles Effect :

5 minutes after application

30 minutes after application

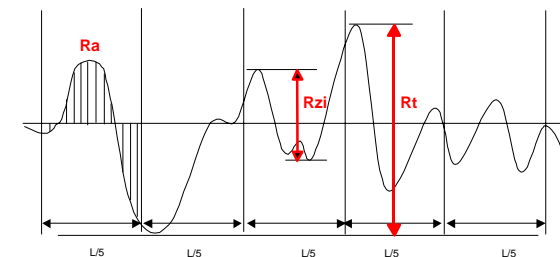
smoothing effect of  
10% SesaFlash in  
water in comparison  
to the same area  
before the application



**Ra** : roughness =disparity of the relief

**Rz** : Average amplitude of the relief = general aspect of the relief

**Rt** : Maximum amplitude of the relief = deep wrinkles



\* : Significant Results (  $p < 0,05$  ) in comparison to the same area before application

**SesaFlash effectively smoothes the cutaneous relief -  
A younger looking skin only 5 minutes after application !**

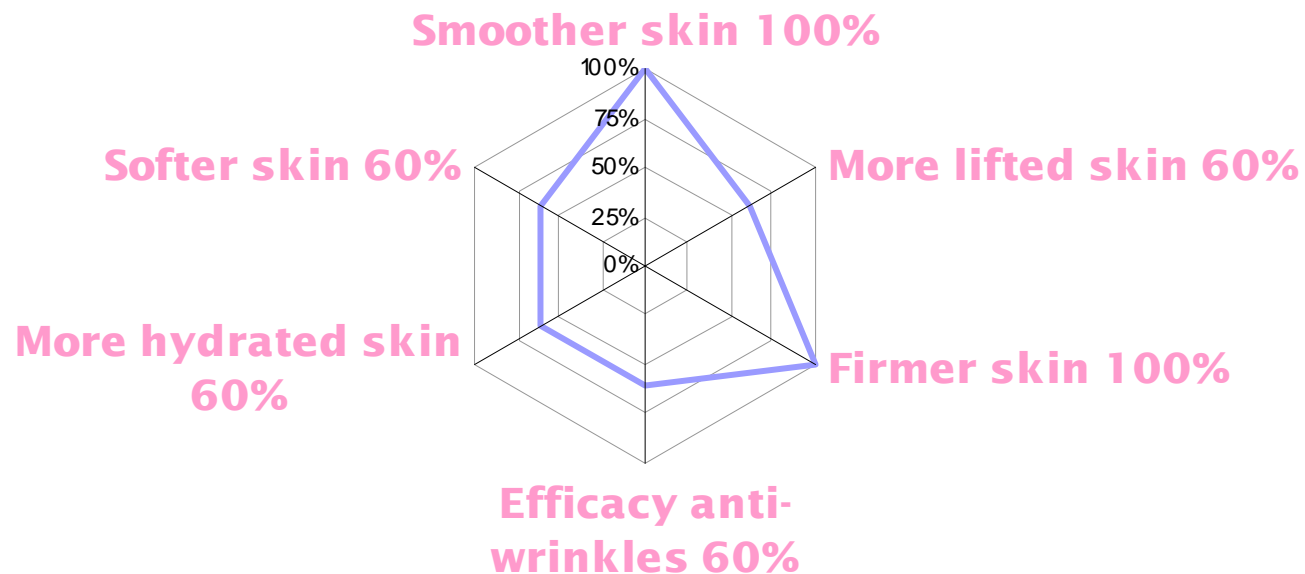




# SESAFLASH™ : A REAL COMFORT ON APPLICATION

## 2. *Comfort and softness on application - Clinical Proof*

⇒ Evaluation of the sensorial effect felt by the women 5 and 30 minutes after application of SesaFlash :



**The efficacy of SesaFlash is unanimously felt by the consumer :  
100% of firmer and smoother skin !**

*Comfortable, SesaFlash let the skin softer and better hydrated.  
SesaFlash does not produce an inconfortable sensation.*



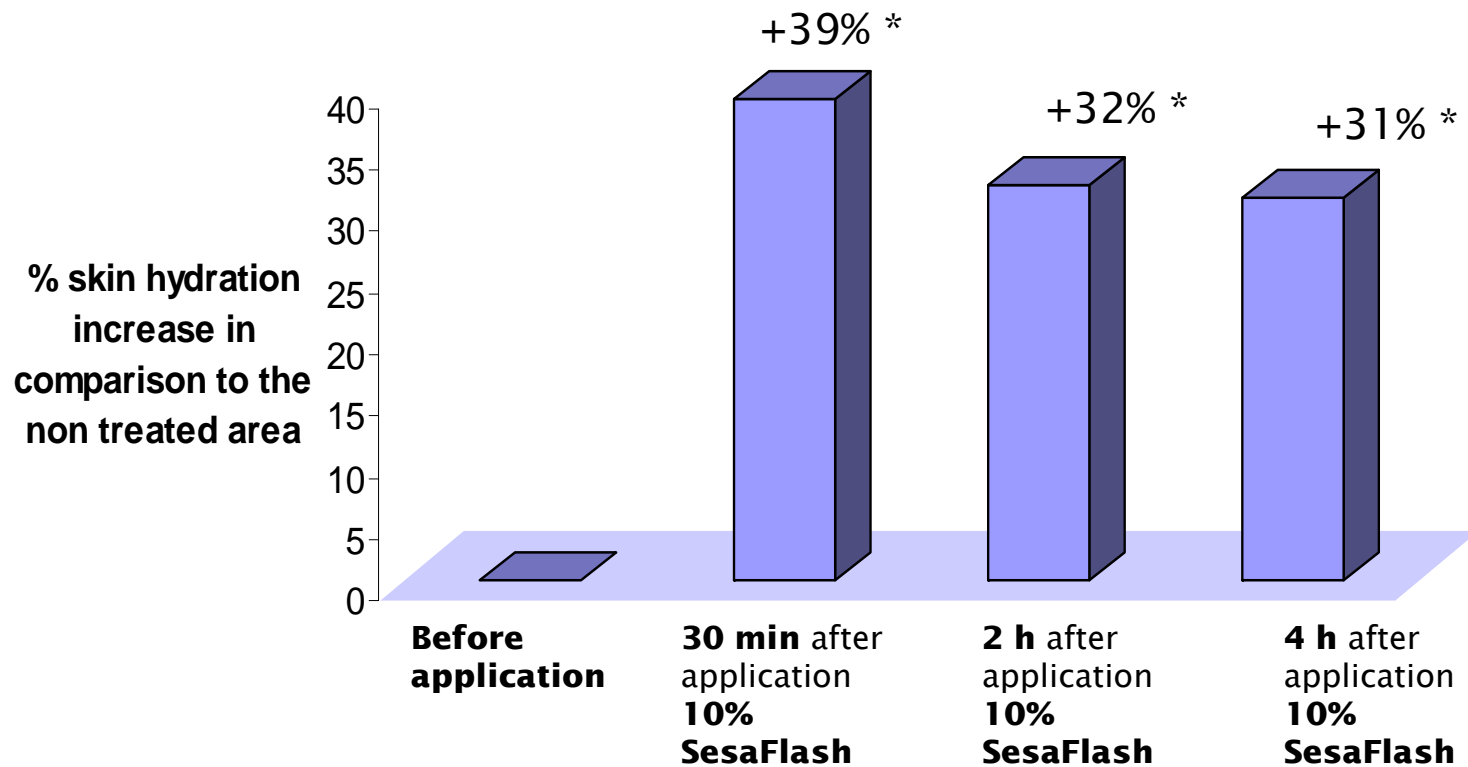


## SESAFLASH™ : A REAL MOISTURIZING EFFECT

### 3. The “EXTRA BENEFIT” of a real Skin Moisturizing Effect - Clinical Proof

- SesaFlash diluted at 10% in water
- 15 women (average age = 31 years old)
- Included criteria : dry skin < 50 UI (with corneometer)
- Application : once on forearms

\* Highly significant results (  $p < 0,001$  ) in comparison to the non treated area.

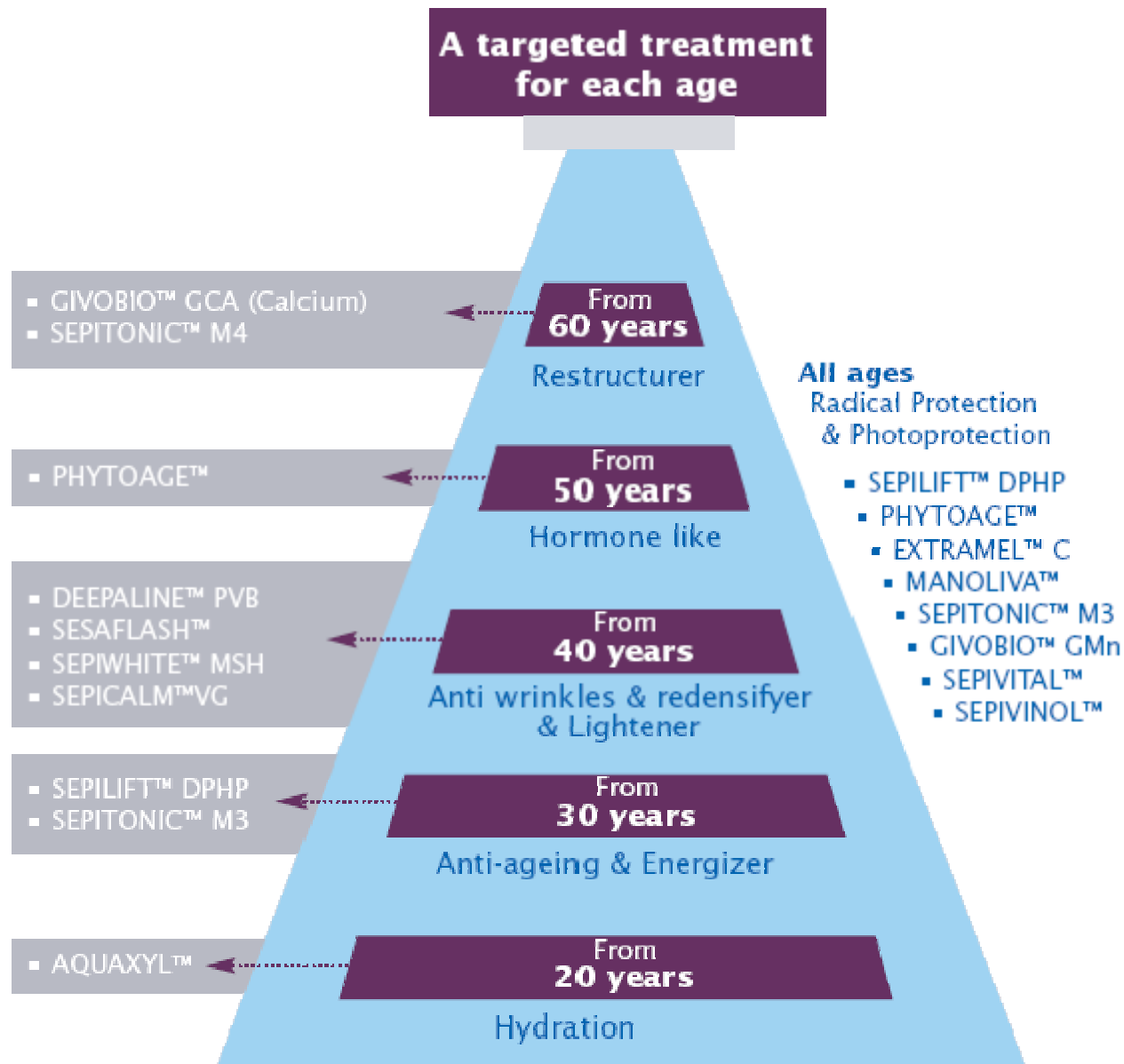


SesaFlash effectively and significantly moisturizes the skin all day long. The cutaneous comfort sensation is then actively reinforced.





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# **DEEPALINE™ PVB**

***A new « High Density » Anti  
Ageing Strategy !***

***Unprecedented double scientific  
performance***





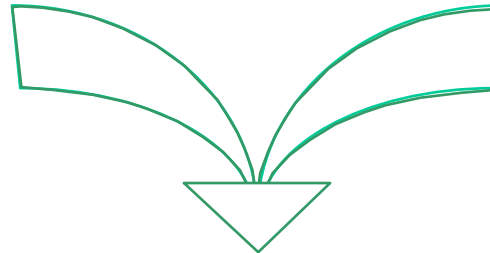
# DEEPALINE PVB™

## HIGH DENSITY ANTI AGEING STRATEGY

Palmitic acid

*lipophilic*

**BIOVECTORISATION**  
*of the native protein  
through bonding*



Wheat Protein  
Amino acids

*hydrophilic*

**DEEPALINE PVB**

***Plant-based amino acid vectors***

Excellent bio-affinity with the skin (lipoaminoacid –  
amphiphilic structure)

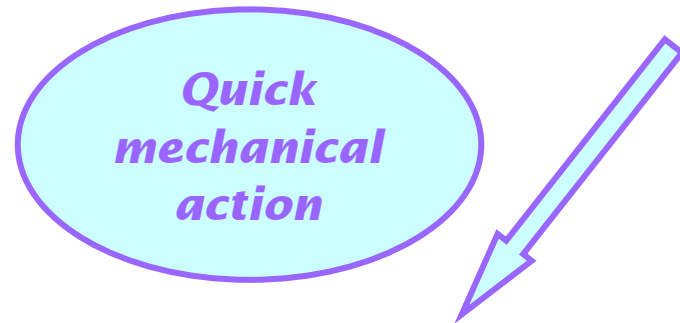
**INCI name: Palmitoyl hydrolyzed wheat protein**





**Deepaline PVB, a double Scientific performance to get rid of the 2 main origins of DEEP wrinkles !**

**(in vitro & in vivo proven efficacy versus a placebo)**



① Relaxing effect to smooth out facial expression wrinkles

- "Botox-like" effectiveness



② Re-densifying action: helps fill all the wrinkles (dermal and epidermal action)

- Stimulates fibroblasts mobility

- Promotes extra cellular matrix components organization (collagen)

- Improves epidermis renewal (vital function & differentiation of keratinocytes)





# DEEPALINE PVB™

## HIGH DENSITY ANTI AGEING STRATEGY

### 2. Long-term re-densifying action –WRINKLE FILLER

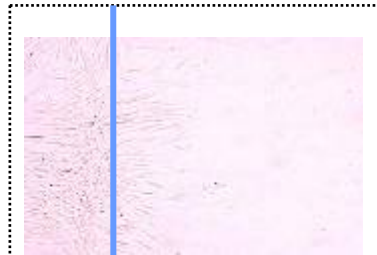
#### 2.1. Fibroblasts mobility – *Dermal Action*

=> **Aim** : Promote fibroblasts migration so they can fill in the wrinkled areas (which are poor in cells)

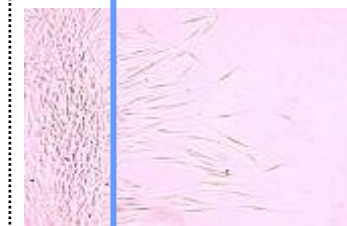
#### In vitro protocol :

- 1. Fibroblasts cultivated at confluence
- 2. Elimination of half the cell mat
- 3. Addition of tested molecules :
- 4. **Image analysis of cells which migrated on D1**

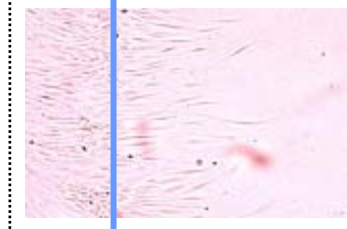
**Control**



**EGF  
0,0001%**



**Deepaline  
PVB 0.0001%**



+ 32% migration / control

+ 34% migration / control

=> **Deepaline PVB promotes the migration of fibroblasts to re-densify and fill in wrinkles**

Migration front on D1





# DEEPALINE PVB™

## HIGH DENSITY ANTI AGEING STRATEGY

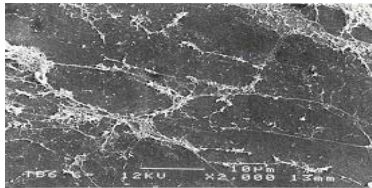
### 2. Long-term re-densifying action – WRINKLE FILLER

#### 2.2. Collagen fibers reorganization – *Dermal Action*

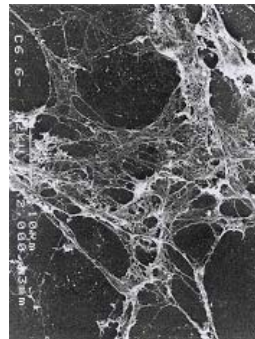
=> **Aim** : Stimulate the organization and synthesis of the ECM constituents, which ensures skin elasticity and firmness

#### In vitro protocol:

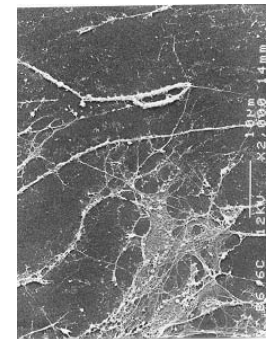
1. Fibroblast culture
2. Deposit of dermal proteins (mainly collagen I, collagen III + other non-collagen proteins)
3. Addition of tested molecules
4. **View of the fiber network in an electronic microscope** (semi-qualitative assessment of synthesis and assessment of their organization)



Control



Vitamine C 0,0017%



Deepaline PVB 0,00001%

⇒ **Deepaline PVB clearly improves the organization of the ECM constituents (mainly coll I and III) in wrinkled areas.**

⇒ **As a result, the wrinkles are filled in and are not as deep.**





# DEEPALINE PVB™

## HIGH DENSITY ANTI AGEING STRATEGY

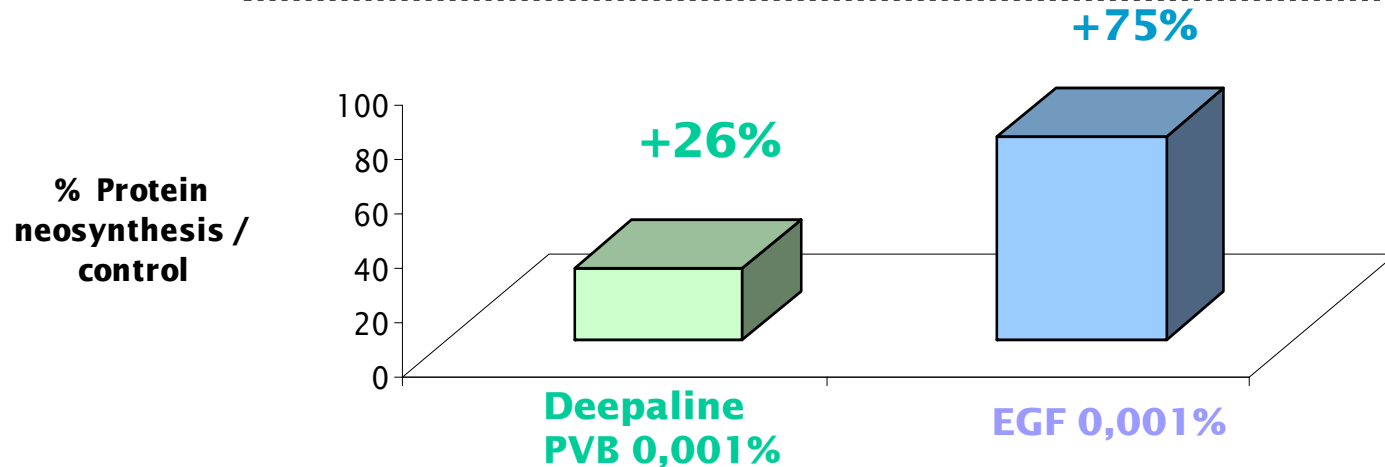
### 2. Long-term re-densifying action – WRINKLE FILLER

#### 2.3. Keratinocytes vital functions – Epidermal Action

=> **Aim:** Maintain a healthy epidermis with its vital functions (protective barrier )

**In vitro protocol:**

- 1. Culture of normal human keratinocytes (24 hours)
- 2. Addition of tested molecules
- 3. **Radioactive measurement of the neosynthesis of proteins** (incorporation of radiolabeled leucine)



=> **Deepaline PVB stimulates the metabolic functions of keratinocytes which ensure the epidermis renewal**





# DEEPALINE PVB™

## HIGH DENSITY ANTI AGEING STRATEGY

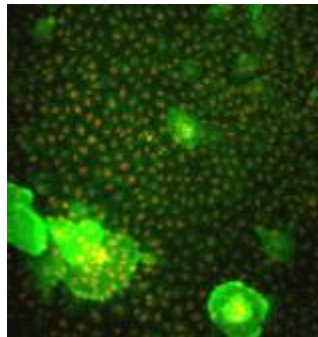
### 2. Long-term re-densifying action – WRINKLE FILLER

#### 2.4. Keratinocytes differentiation – Epidermal Action

=> **Aim: Help improving the skin's barrier function (altered with age)**

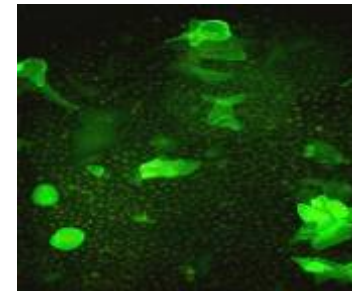
**In vitro protocol:**

1. Culture of normal human keratinocytes
2. Addition of tested molecules (5 days):
3. **Quantification of transglutaminase through immuno-labeling**
4. *Fluorescence Image analysis*



**Control (no active agent)**

— transglutaminase  
— DNA



**Deepaline PVB 0,0001%**  
**109% more differentiation than in the Control**

⇒ Deepaline PVB takes part in the renewal and organisation of the epidermis (stimulates the vital functions of keratinocytes + keratinisation). **The epidermis is more resistant and denser.**





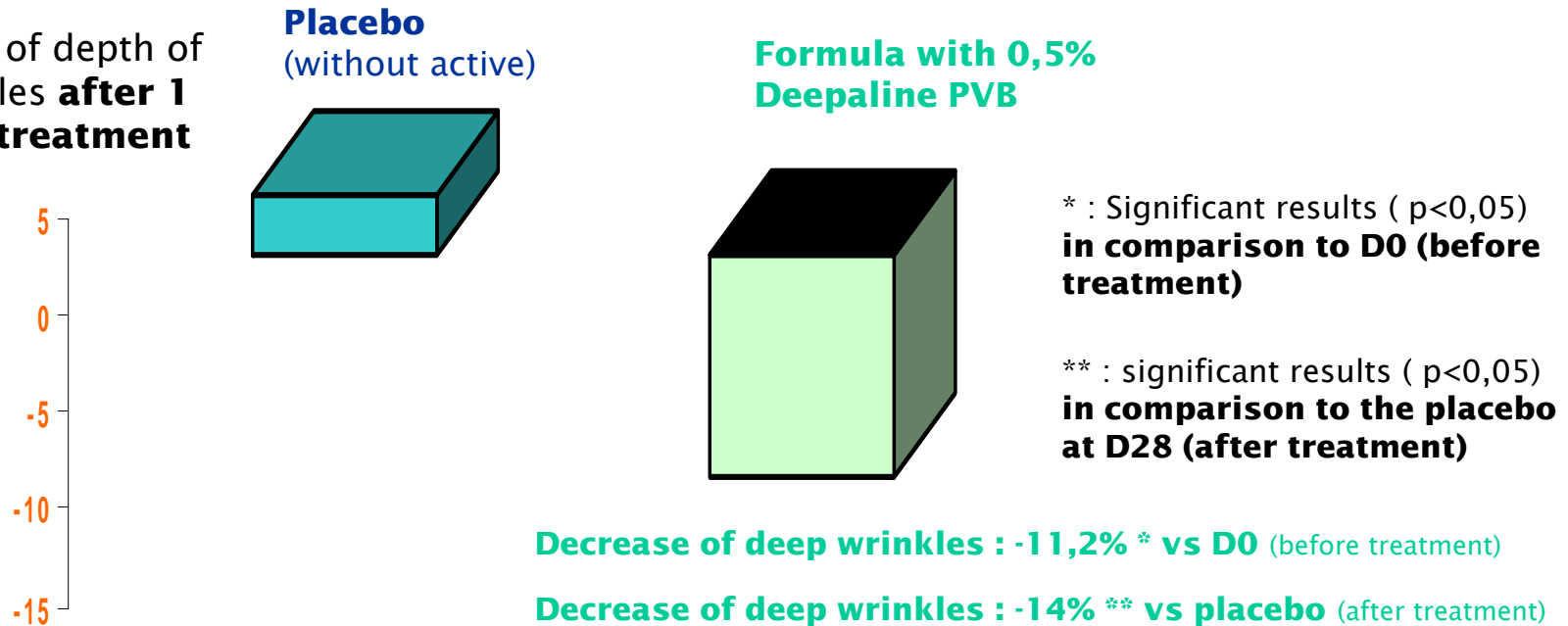
# DEEPALINE PVB™

## HIGH DENSITY ANTI AGEING STRATEGY

### 3. In vivo effectiveness on deepest wrinkles

- Deepaline PVB at 0,5% (6995 formula) versus placebo
- 20 women (average age = 53 years old)
- 1 month of treatment (28 Days)

% decrease of depth of deep wrinkles **after 1 month of treatment (D28)**



**During the first month of treatment, Deepaline PVB gets rid of the deepest lines !**

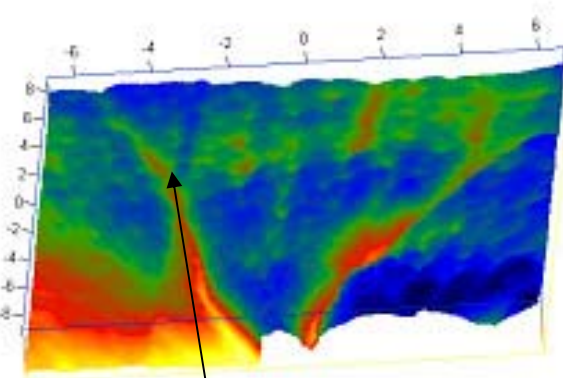




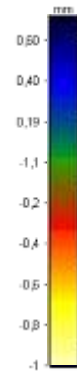
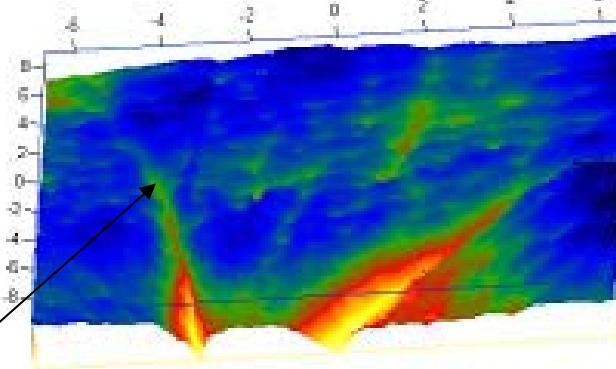
# DEEPALINE PVB™ HIGH DENSITY ANTI AGEING STRATEGY

## 3. In vivo effectiveness on deepest wrinkles

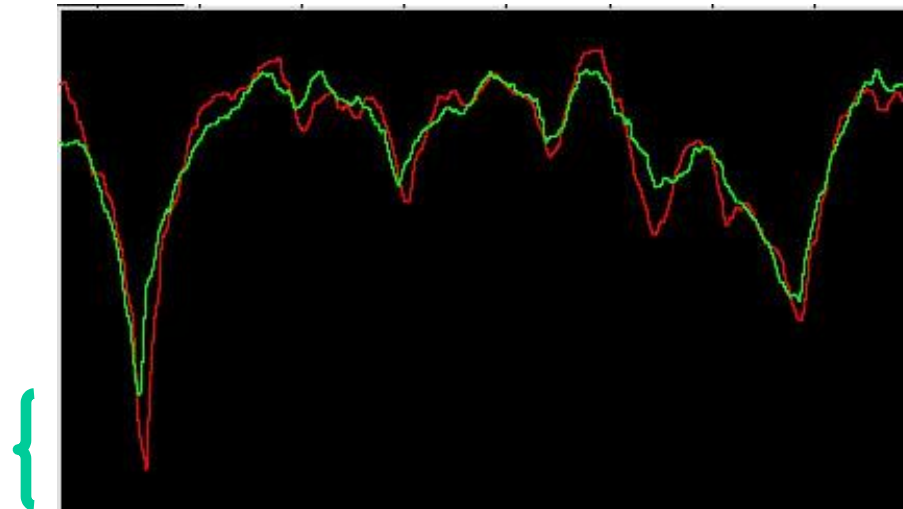
**Before treatment (D0)**  
volunteer n°16



**After 1 month of treatment (D28) with  
0,5% Deepaline PVB** - volunteer n°16



**Decrease of the wrinkles depth  
after 1 month of treatment with  
Deepaline PVB – Primos™  
illustrations of crow's feet area**



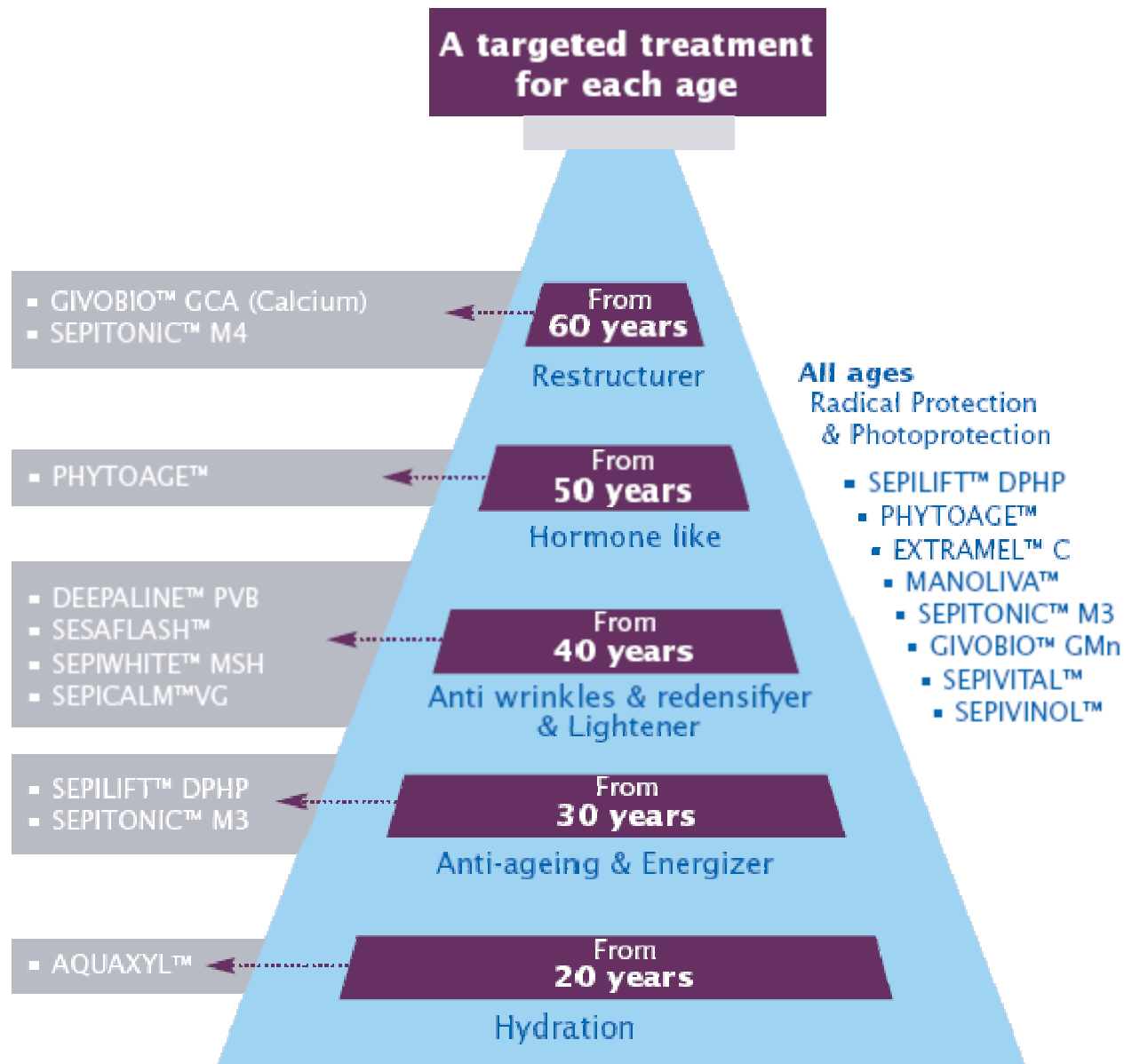
— Before treatment (D0)

— After treatment (D28) with Deepaline C/3448/GB/01/January 2007 45





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# PHYTO-AGE™

*"Twice as powerful in the fight  
against time"*



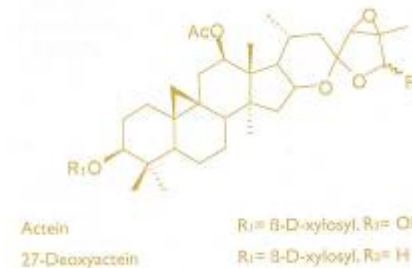
• **Extract of *Cimicifuga racemosa***



Rich in **“active” anti-ageing molecules**

- Isoferulic acid and ferulic acid
- Flavonoid
- Tannins

**Assayed** by HPLC for:  
→ **Triterpene glycosides**  
calculated as 27-deoxyacteïn

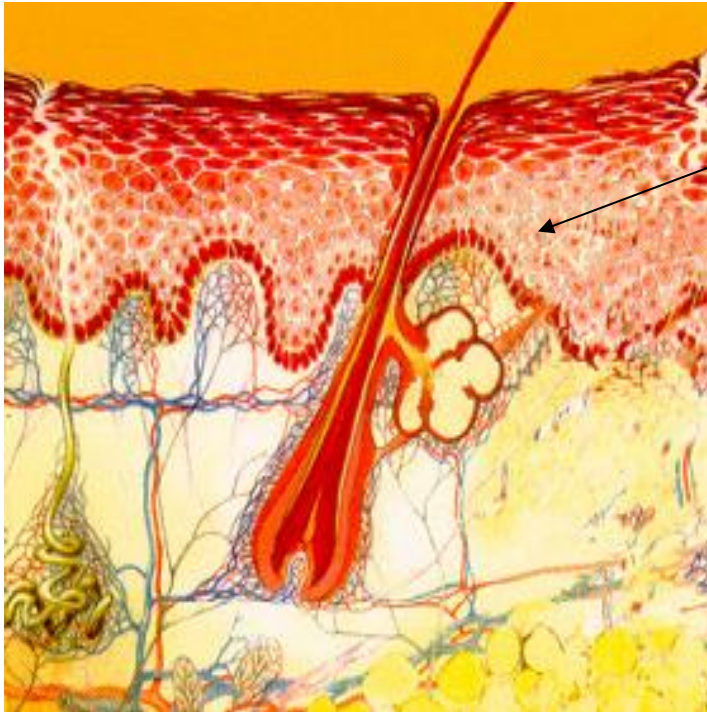


• **INCI name: *Cimicifuga Racemosa* Root Extract**



- **Fighting hormonal ageing**

Mode of action:



**Plant “HORMONE-LIKE”  
structure**

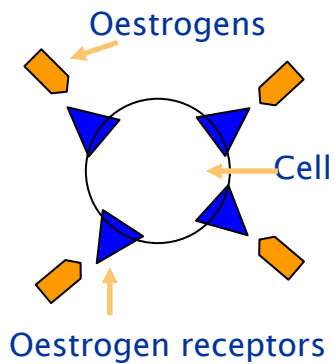
➔ Affinity for cellular  
oestrogen receptors



## • PHYTO-AGE: Fighting hormonal ageing

### Young skin

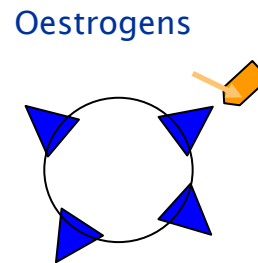
→ Normal oestrogen content



Normal skin

### Mature skin

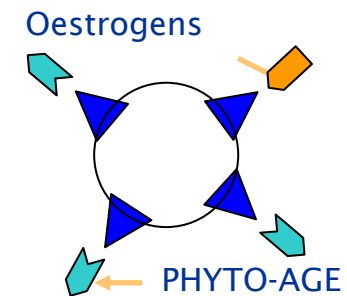
→ Oestrogen deficiency



Atrophied, flabby, dry, pale skin

### Mature skin

→ Protected by PHYTO-AGE



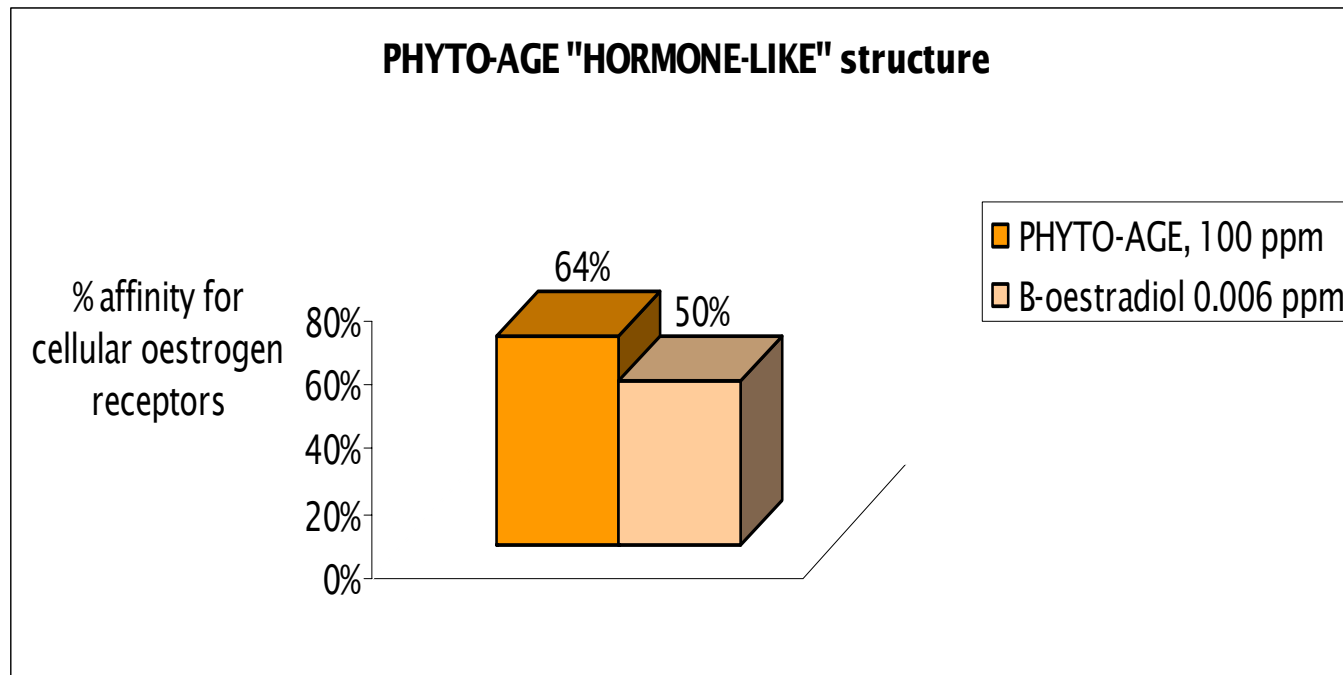
Protection against the harm caused by hormonal deficiency





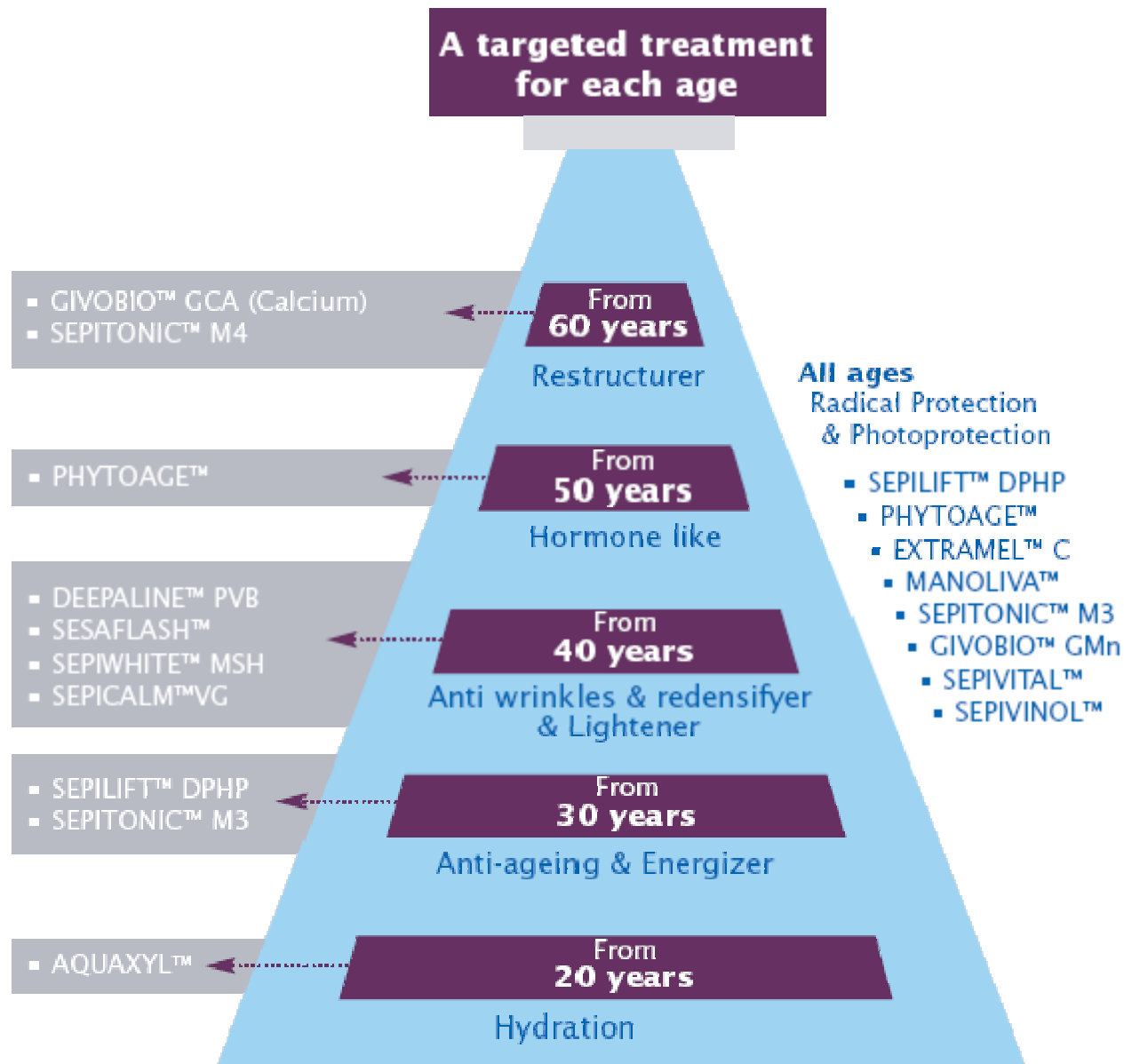
# PHYTO-AGE™ and hormonal ageing

- PHYTO-AGE has excellent affinity for cellular oestrogen receptors (binding test).***





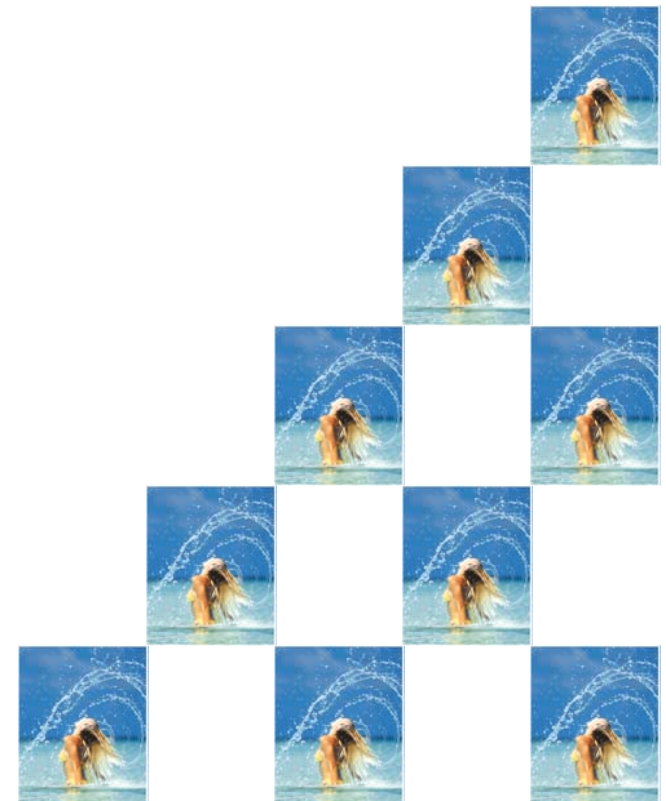
# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# GIVOBIO™ GCa

*Revitaliser, restructurer*



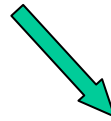


## GIVOBIO™ GCa : STRUCTURE

**Gluconate**

**Organic anion**

- VEHICLE for calcium thereby promoting its delivery to cutaneous tissue



**Calcium**

**Mineral Cation**

- Important cellular effector which promotes keratinocytes differentiation



**GIVOBIO GCa**

*Reinforces the barrier function*





## GIVOBIO™ GCa : STRUCTURE

---

↑Age ⇒ ↓ Epidermal thickness (cutaneous alteration)

Ca<sup>2+</sup> ⇒ ↑ Epidermal differentiation

⇒ Improvement of cutaneous barrier

⇒ Skin more resistant and less dull

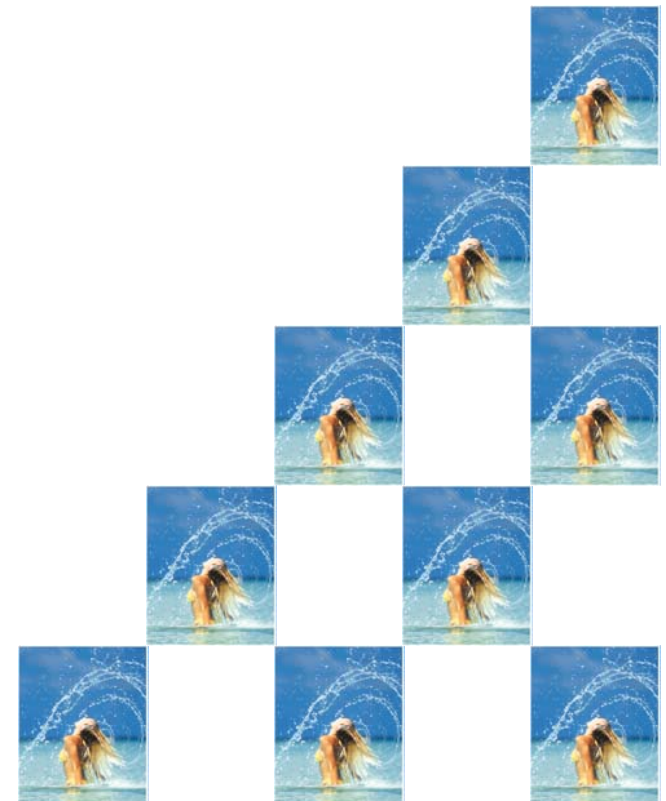
***Thanks to Ca<sup>2+</sup> , Givobio GCa makes skin more resistant and less dull.***





# SEPITONIC™ M4

*Restructurer*



**Aspartate / Gluconate**

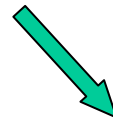
« **Intelligent** » **organic anions**

- Promote cations vectorization (make them Bio-Available)
- Real Biological efficacy (ATP – ADN)

**Copper/ Zinc/ Magnesium/Calcium**

**Mineral Cations**

- Synergistic effect
- Enzymatic cofactors
- Reload the cells electrical potential (= electric battery)



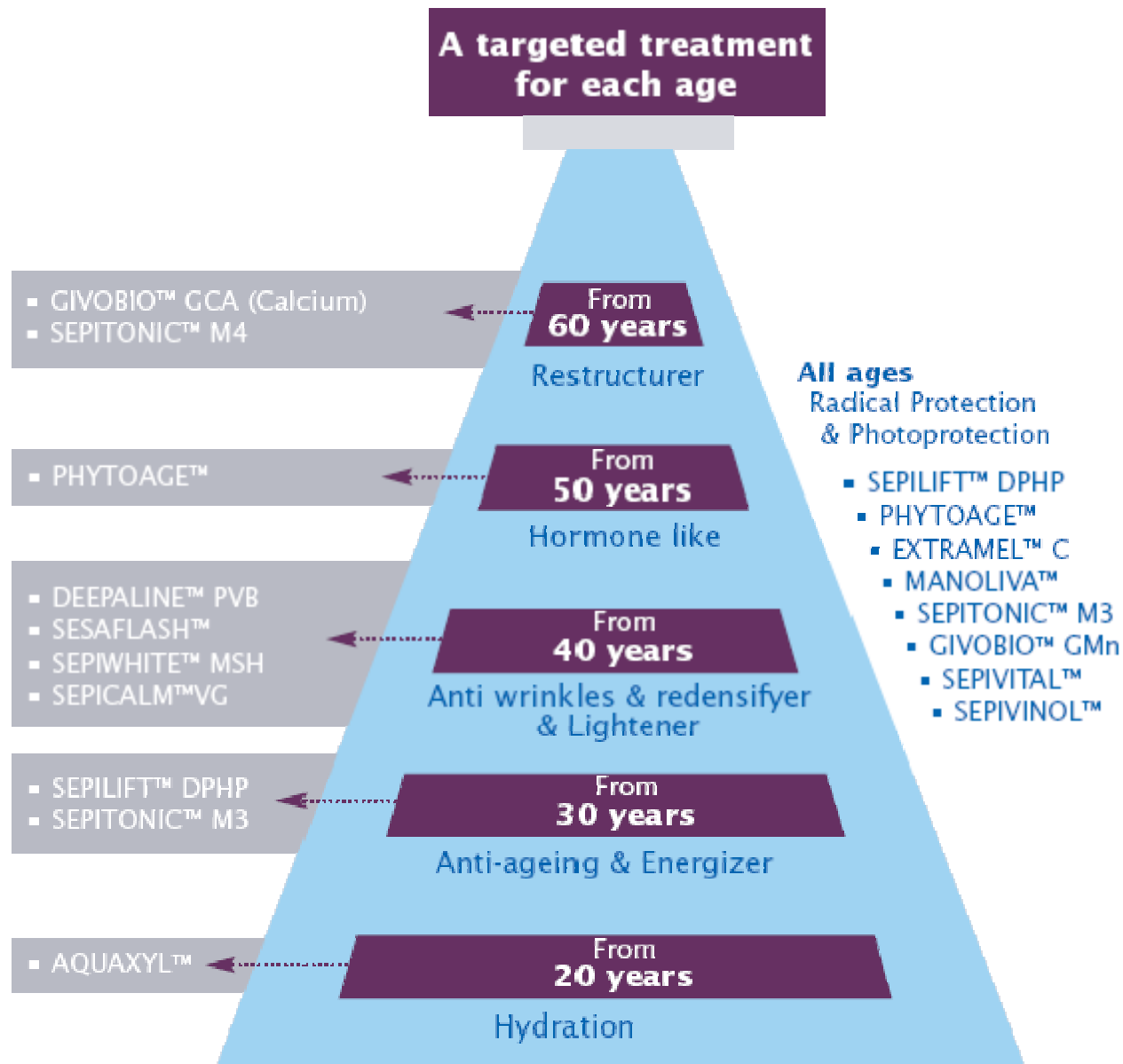
**SEPITONIC™ M4**  
**( = SEPITONIC™ M3 + GIVOBIO™ Gca)**

***INCI name : Magnesium aspartate, Zinc gluconate, Copper gluconate, Calcium Gluconate***

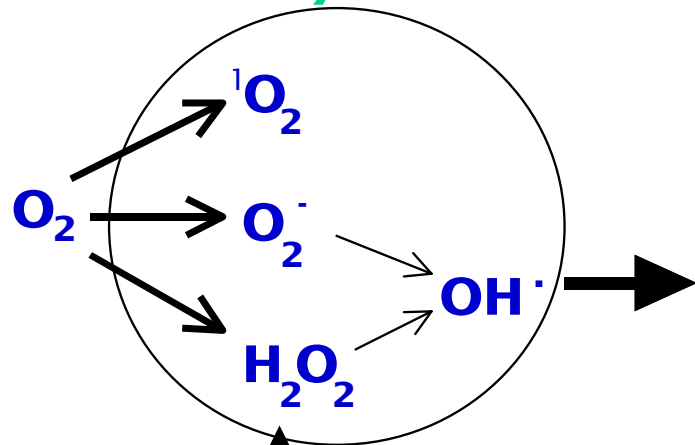




# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS



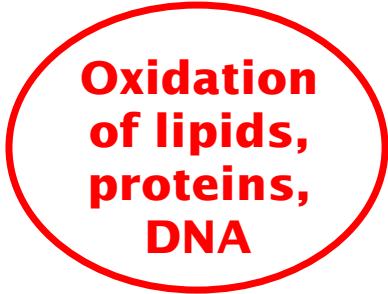
## Primary free radicals



**SOD**  
**Catalase**  
**Peroxidases**

## Primary antioxidants

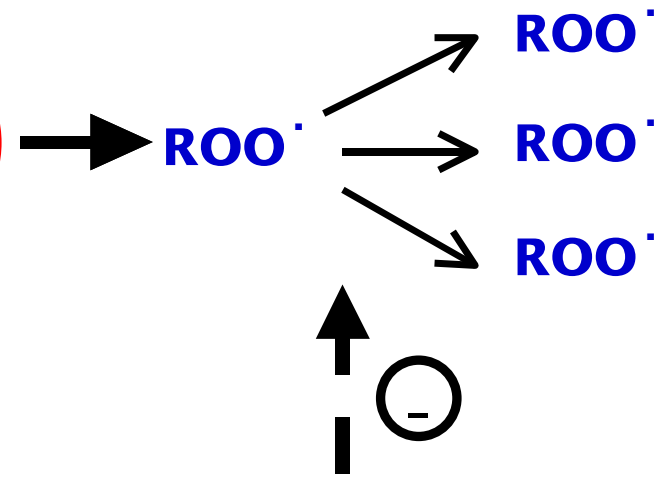
**= EXTRAMEL C**



## Secondary free radicals

### Chain reaction

Increased radical flux & Lipid peroxidation



**Vitamins E & C**  
**Glutathione**  
**Polyphenols etc.**

## Secondary antioxidants

**= MANOLIVA / SEPIVINOL / SEPIVITAL**



## PHOTO AGEING

***It is the SUN, rather than age, that is responsible for skin aging!***

### 75-year-old twins



**Frequently exposed to sunlight,  
no skin protection  
→ Severe photo-ageing**



**Sun: 75% responsibility  
for the appearance of  
wrinkles**



**Rarely exposed to sunlight,  
regular skin protection  
→ Very few wrinkles**



**“Genetic” aging: 25%  
responsibility for the  
appearance of wrinkles**



## Consequences for the skin related to photo-aging

### Destruction of the extracellular dermal matrix

- **↓ Collagen I** (major dermal collagen)
- **↓ GAGs** (molecules capable of binding water)

### Alteration of the dermal-epidermal junction

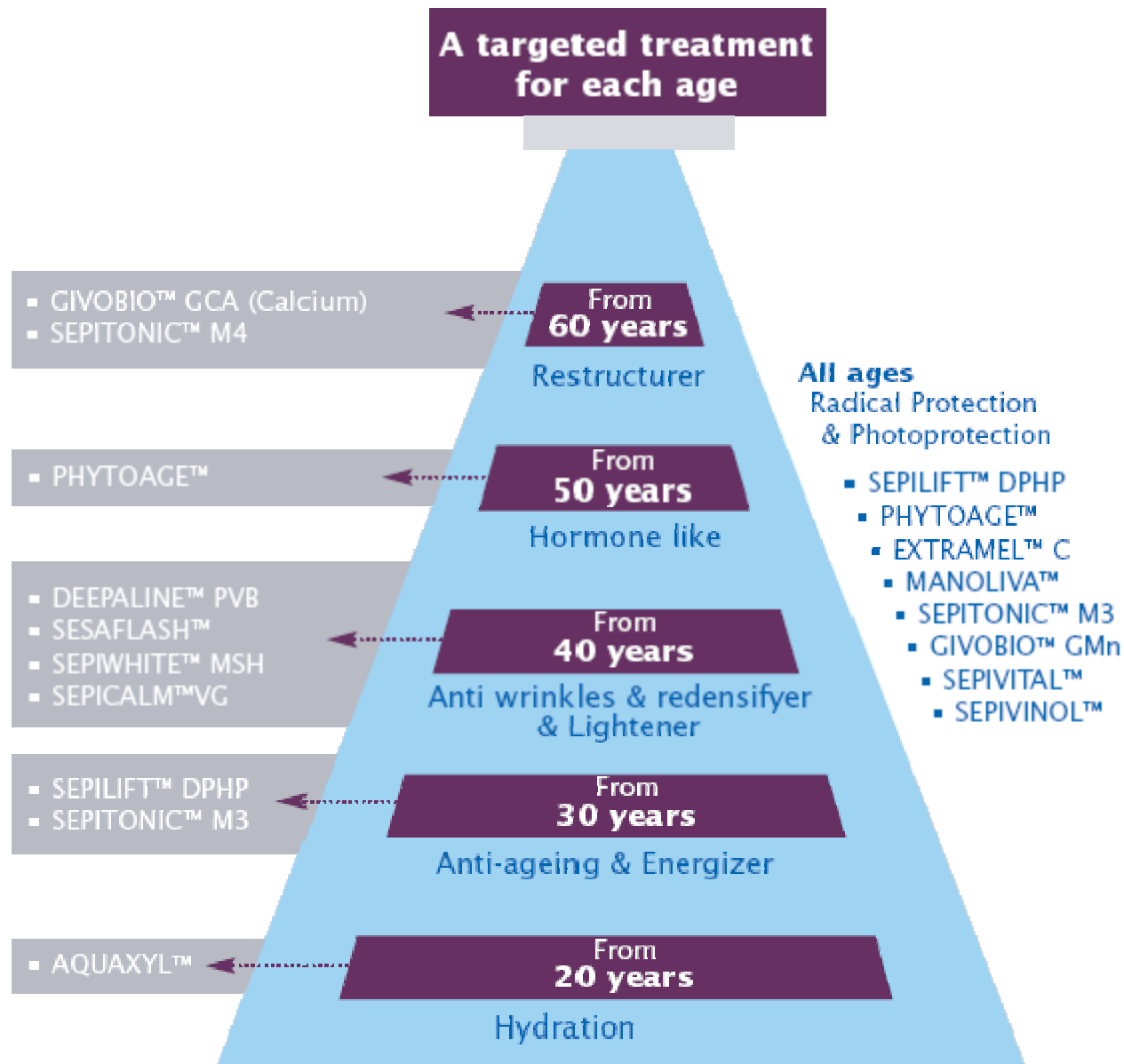
- **↓ Laminins** (anchoring molecules – *governs skin relief*)  
=> *Reduced interchange between dermis and epidermis*

Wrinkled, flabby, dry skin





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





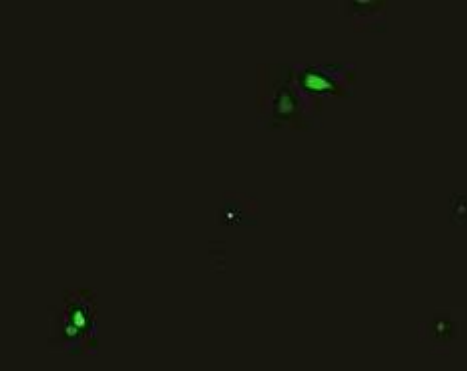
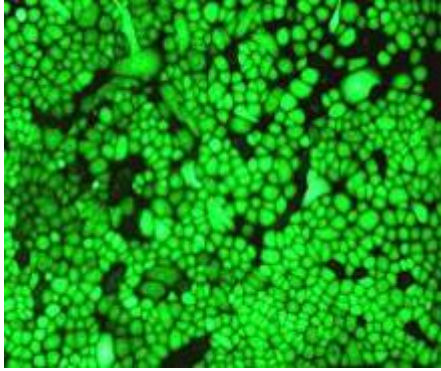
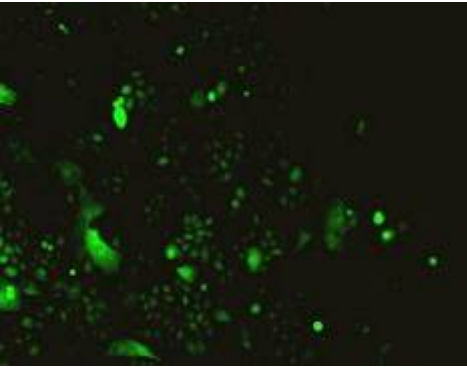
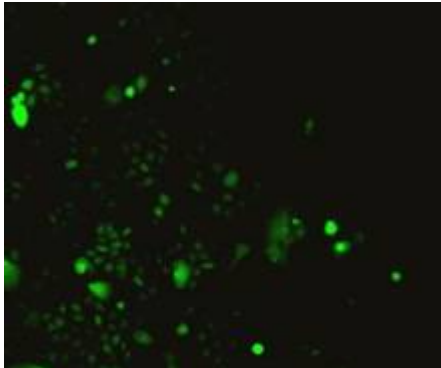
# EXTRAMEL™ C

*Treat your skin to a delightful  
anti-oxidant melon cocktail, with  
a known activity of stabilized  
SOD!*



# EXTRAMEL C : ANTIRADICAL EFFECTIVENESS – NON- ENCAPSULATED MELON EXTRACT

## Test 1. Antiradical protection of keratinocytes subjected to UVA stress

<p>Control without UVA</p>			<p>Control with UVA <b>0% photoprotection</b></p>
<p>UVA + Melon extract 0.0055% - 6 IU/g (= Extramel C: 0.1%)</p> <p><b>70% Photoprotection</b></p>			<p>UVA + Ascorbic acid 0.0055%</p> <p><b>72% photoprotection</b></p>

Hydroperoxide determination by fluorescence





# EXTRAMEL C : COMPATIBILITY OF ENCAPSULATED FORM IN FORMULATION

**\* Perfect shear resistance**

	Control without test product	Extramel C emulsified at 0.1% unsheared
	Conventional emulsification SILVERSON rotor-stator turbine	Conventional emulsification SILVERSON rotor-stator turbine <b>Extramel C added at end of formulation at 30°C, with mechanical stirring</b>
pH	6.5	6.4
Viscosity	31 000 m Pa.s	34 000 m Pa.s
Appearance	White cream	White cream
Microscopic appearance (200 X)		
Stability	RT Stable > 1 year 40°C Stable > M6 50°C Stable > M1	45°C Stable > M1 Stable > M1

Extramel C

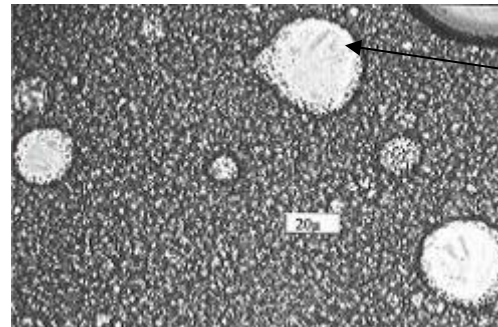
**=> The Extramel C “capsule” is not altered by shear – The SOD remains protected in the formula**





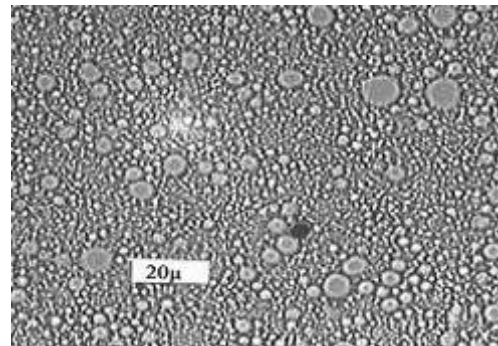
**Release of constituents from the capsule by manual spreading on the skin**

Before spreading



**0.1% Extramel C in formulation  
CAPSULES present**

After manual spreading



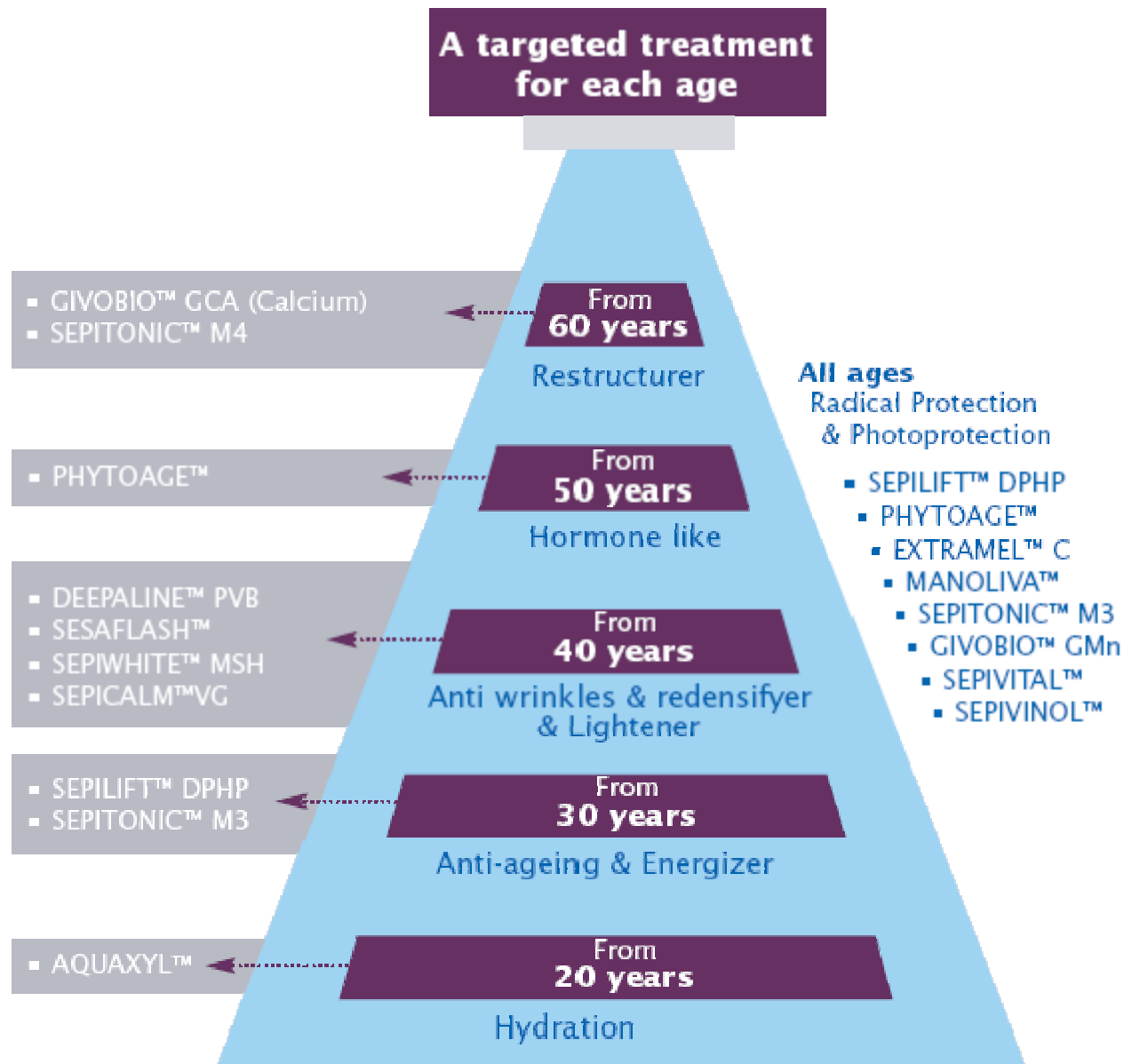
**Disappearance of the CAPSULES and release of the constituents onto the skin upon application**

**=> The capsules of Extramel C are “crushed” by simple manual spreading – The antioxidants are released onto the skin**





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





**MANOLIVA <sup>TM</sup>**

***The “Anti-pollution”  
Innovation***

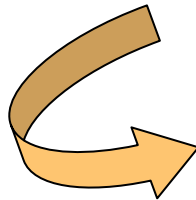




## The “anti-pollution” innovation drawn from the heart of the olive

**OLIVE**

Anti-oxidant properties  
(**Mediterranean Paradox**)



**Extraction and purification of active molecules**  
(**natural process**)

**Olive polyphenols**

**Manganese gluconate**



Reinforcement of  
anti-oxidant activity



**MANOLIVA**

**Patent pending**

***Inci name (registration pending): Manganese gluconate and olive extract***



**Anti-pollution “Life Force” Secret**

Mode of action



**Radical scavenging effectiveness**

**Fights stress**

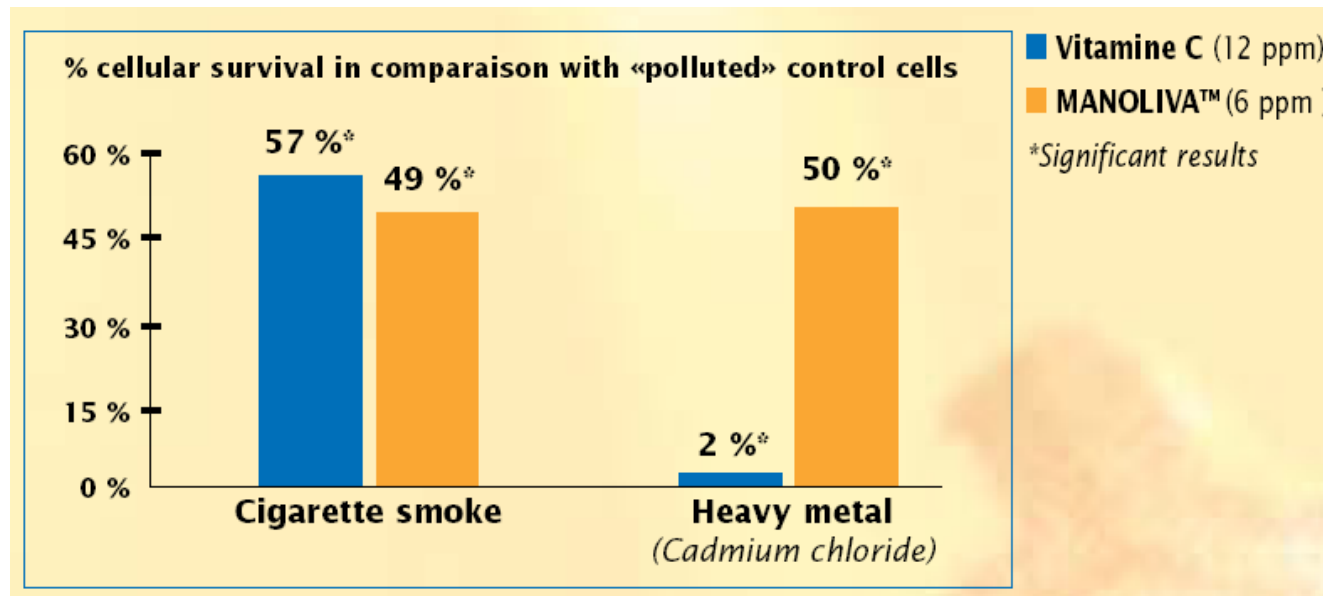
**Stimulates cell survival**

An “anti-pollution” protector, MANOLIVA  **fights premature ageing**

➔ **Skin younger and firmer**



- **Protection of cell survival**



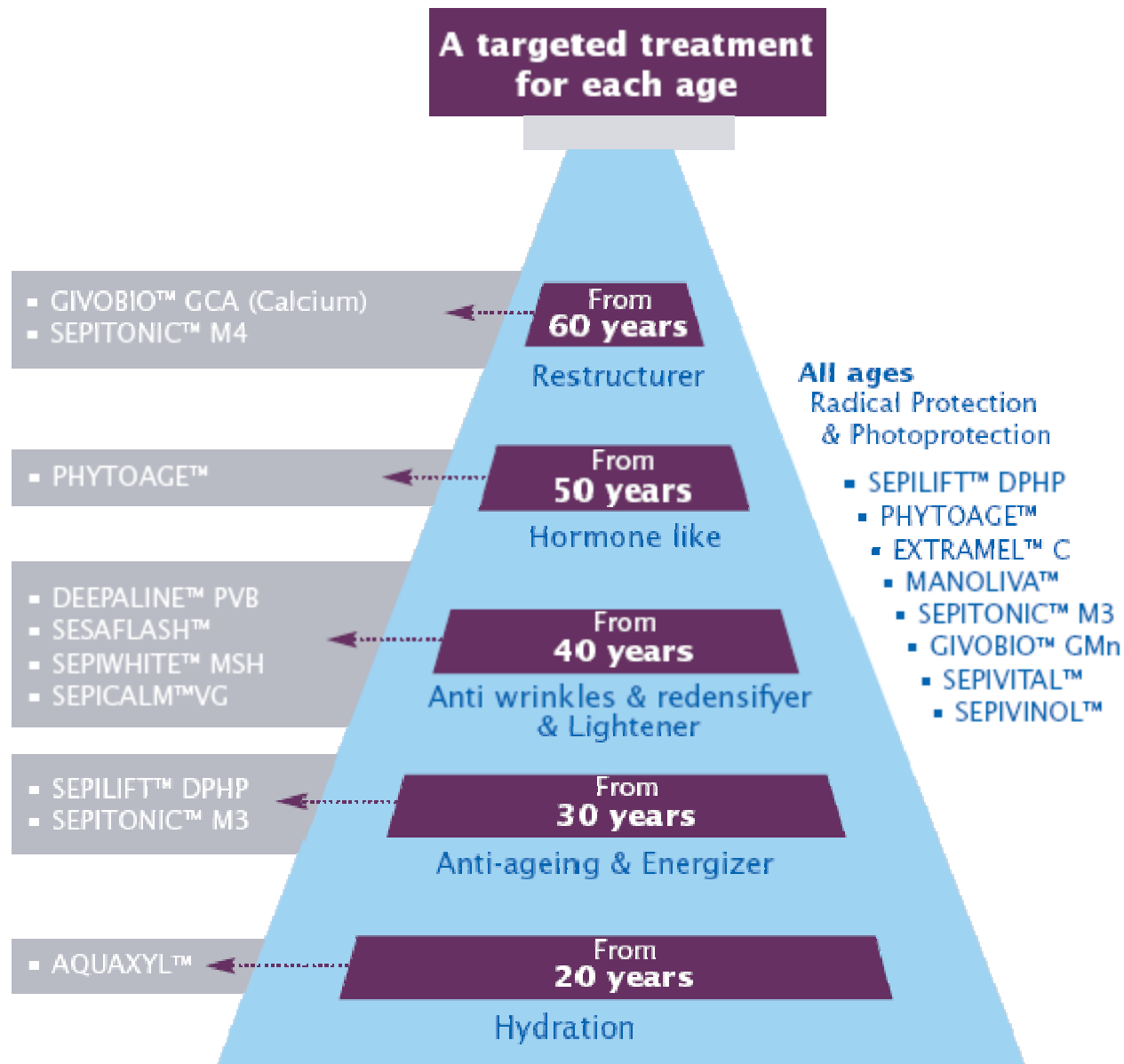
➔ At low concentration, **MANOLIVA effectively protects the life of cells altered by the polluting agents.**

Action substantially more effective than that of vitamin C.





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# GIVOBIO™ GMn

*Superoxyde dismutase cofactor*





## GIVOBIO™ GMn : STRUCTURE



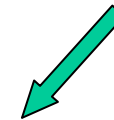
**Organic anion**

- VEHICLE for manganese thereby promoting its delivery to cutaneous tissue



**Mineral Cation**

- Cofactor for the mitochondrial form of SOD which detoxifies free radicals

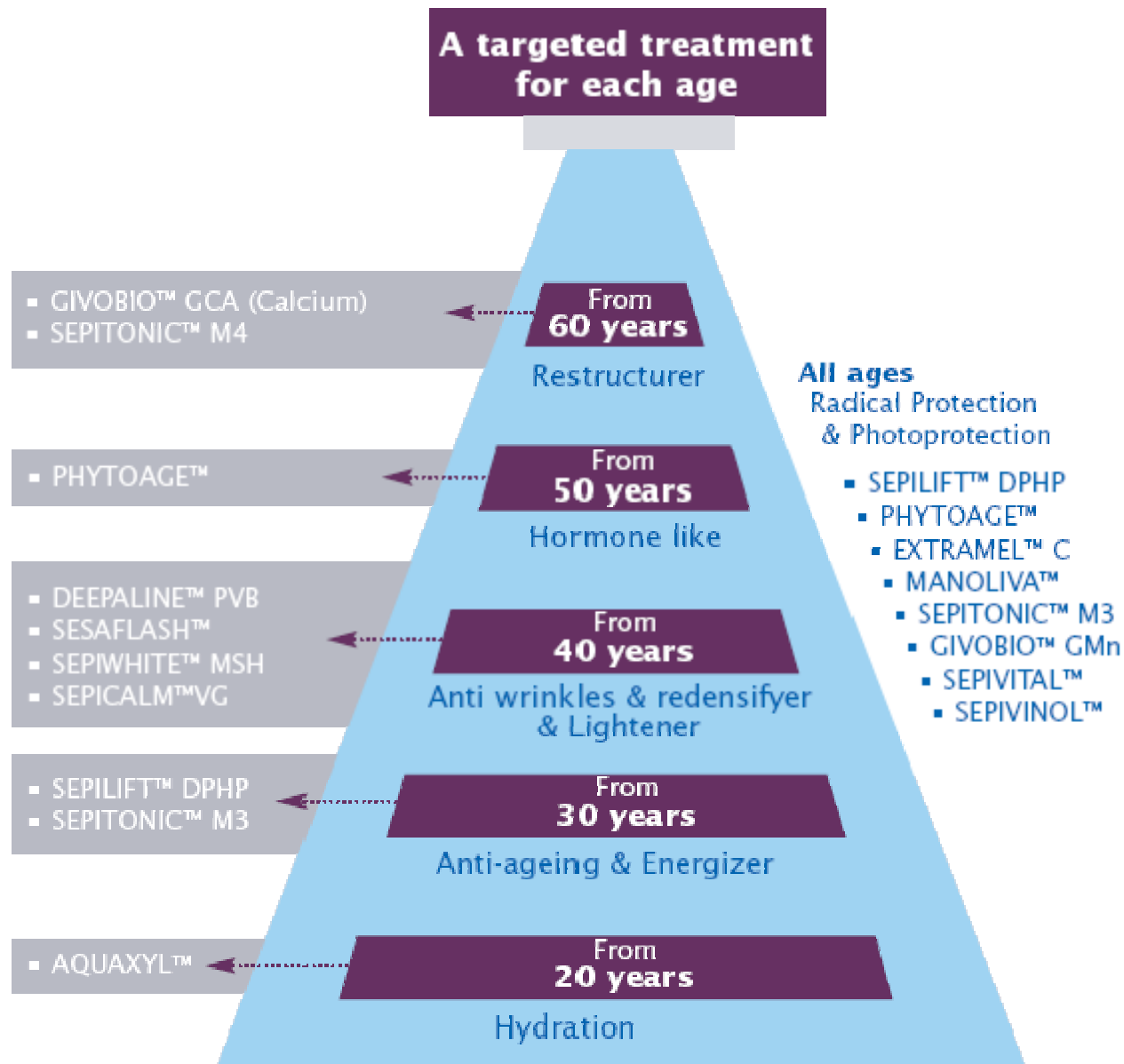


*Quenches free radicals*





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





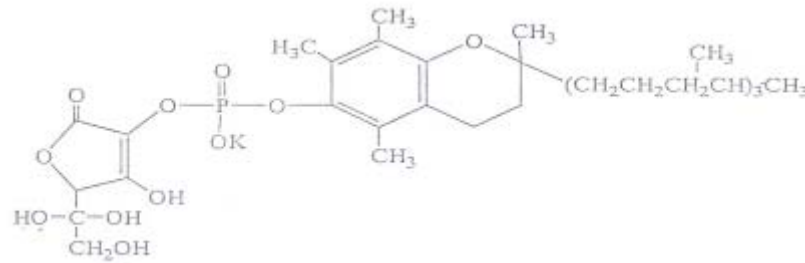
# SEPIVITAL™

*A unique chemical structure based on  
Vitamin C & E*



## SEPIVITAL™

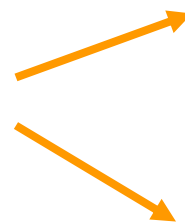
### A NEW CHEMICAL STRUCTURE BASED ON VITAMINS C & E



**Chemical structure:** *L - ascorbic acid dl - alpha - tocopherol phosphoric acid ester potassium salt*

***INCI name : Potassium ascorbyl tocopheryl phosphate***

***Advantages in comparison to a simple mixture of vitamin C and vitamin E***

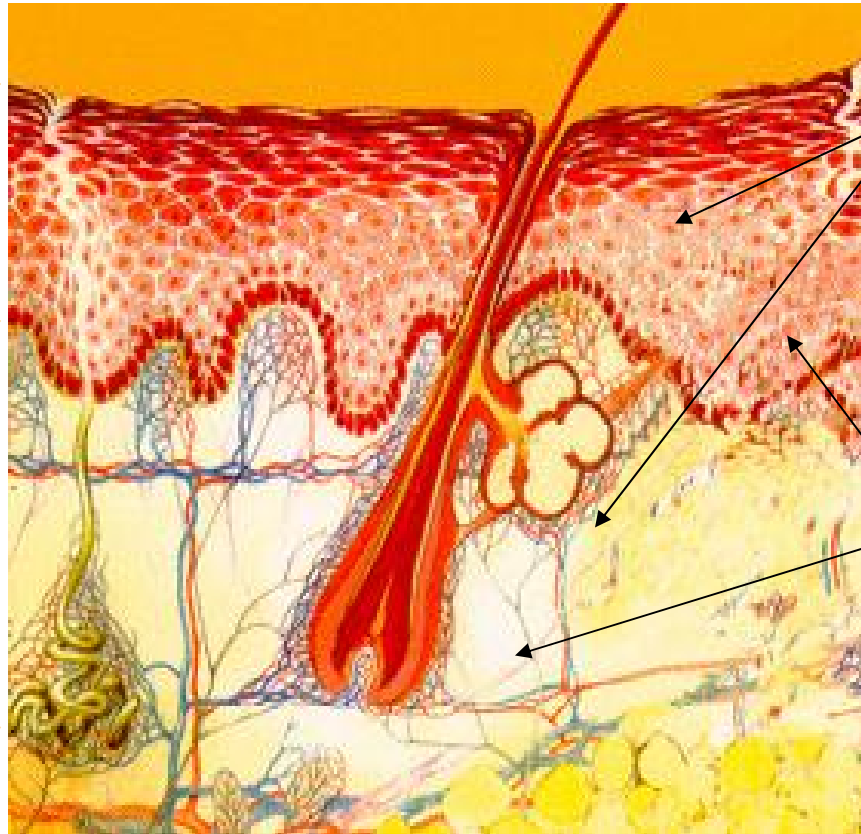


***Better stability***

***Greater efficacy***



Epidermis  
Dermis  
Hypodermis



**SOOTHING**

**Anti inflammatory action  
(inhibition of phospholipase  
A2, cyclooxygenase,  
lipoxygenase, hyaluronidase)**

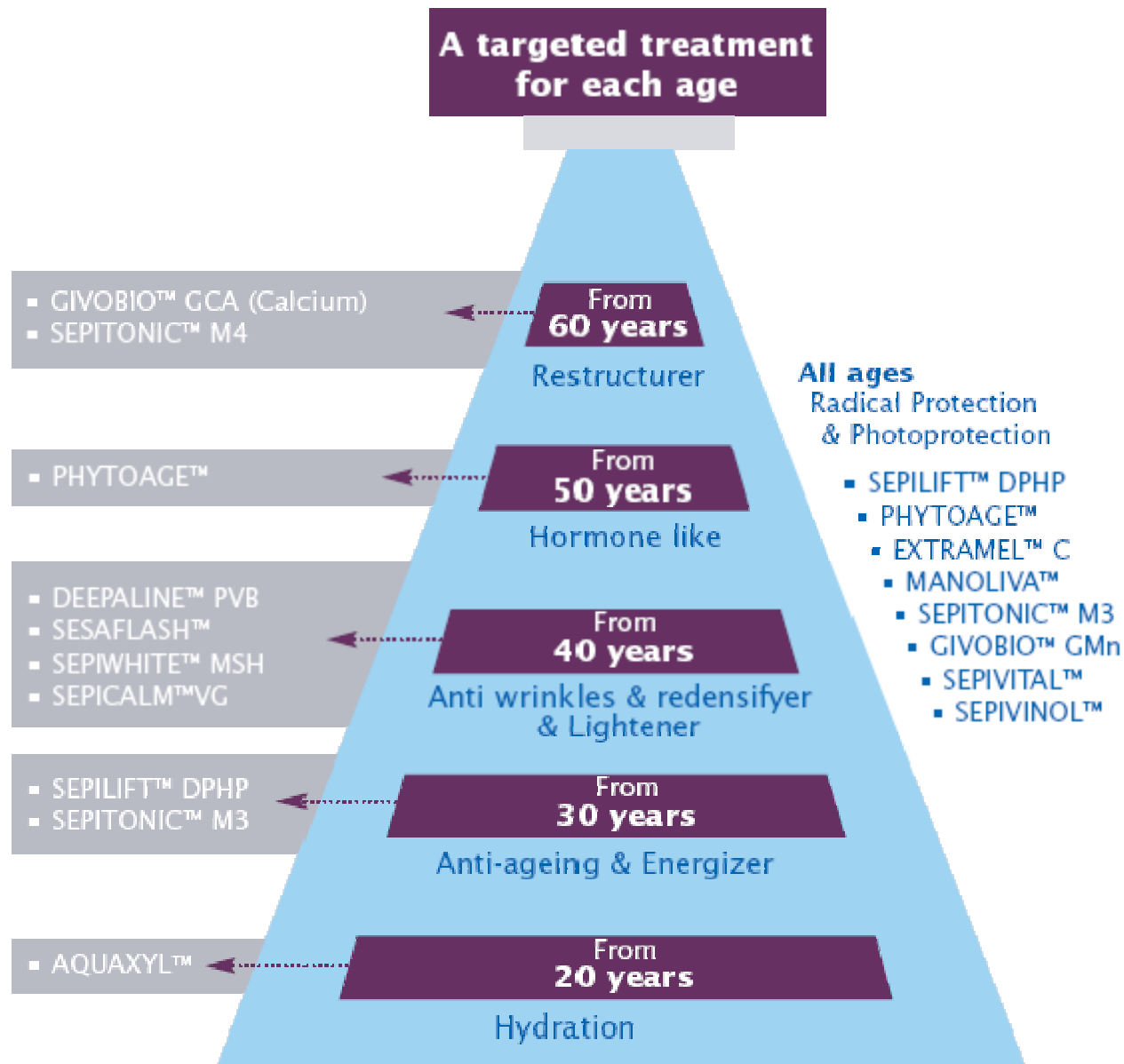
**ANTI AGE**

**Radical scavenger (protection  
of epidermis and dermis  
Constituents)**





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS





# SEPIVINOL™

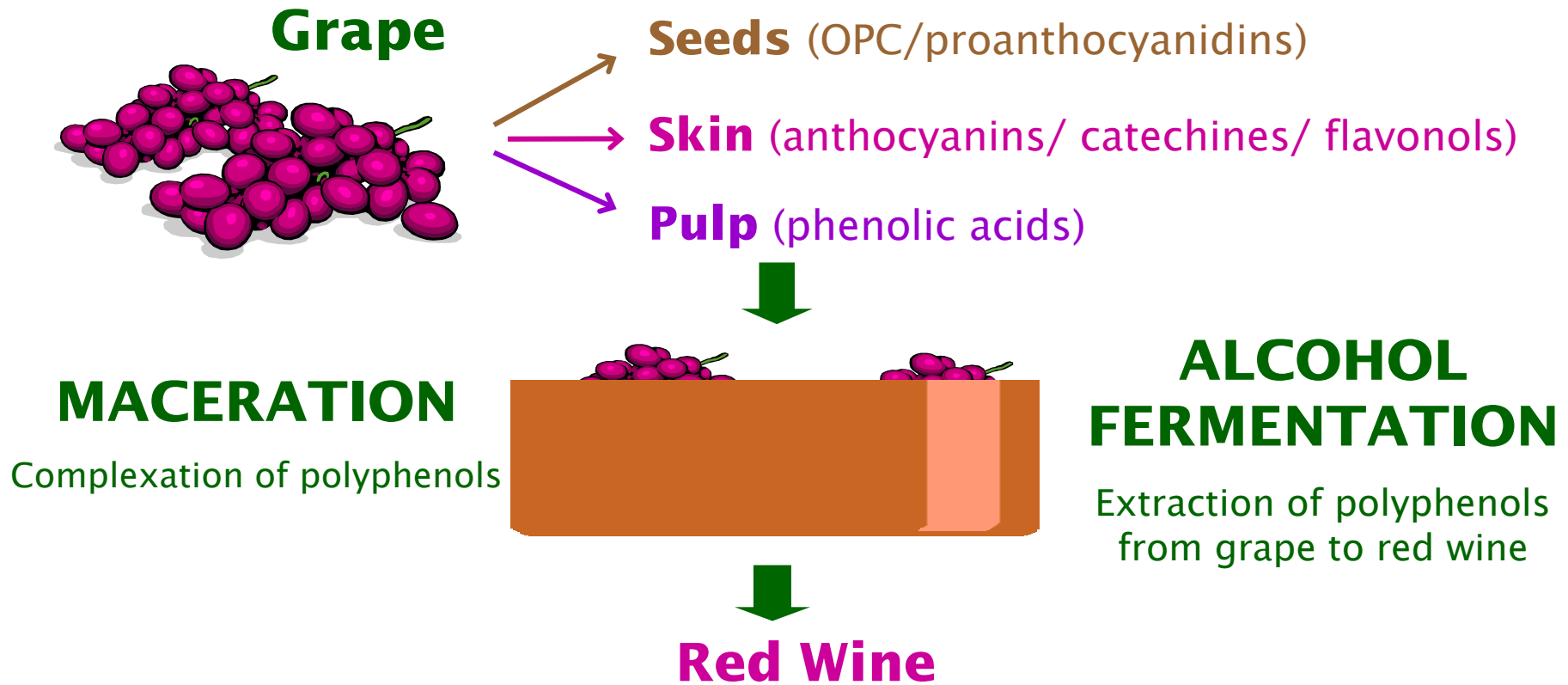
***Red wine extract***

*Antioxidant bioactive polyphenols*



# RED WINE MAKING PROCESS & POLYPHENOLS

• Polyphenols of red wine are **more complex and various** than polyphenols from grape skin, seeds due to the process



*Red wine = Polyphenols from grape pulp, skin, seeds*





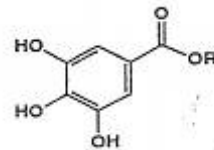
# SEPIVINOL™ POLYPHENOLS COMPOSITION

SEPIVINOL™ contains all polyphenols of red wine

## Phenolic acids :

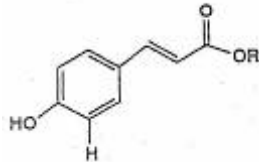
- hydroxybenzoic acid

**gallic acid**



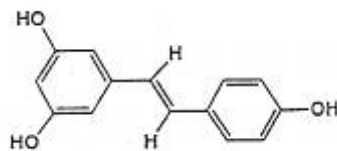
- hydroxycinnamic acids

**p-coumaric acid,  
chlorogenic acid,  
caffeic acid**



## Stilbens

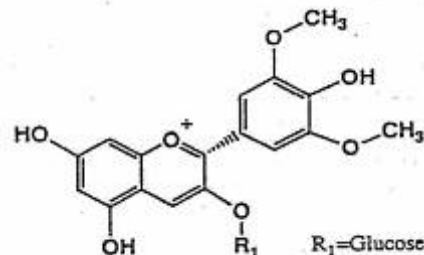
**resveratrol,  
viniferin**



## Flavanoids :

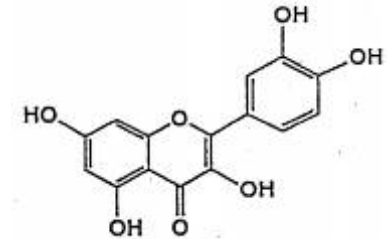
- Anthocyan

**delphinidin,  
maldivin,  
pelargonidin**



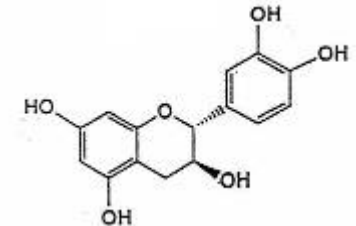
- Flavonols

**quercetin,  
merycetin**



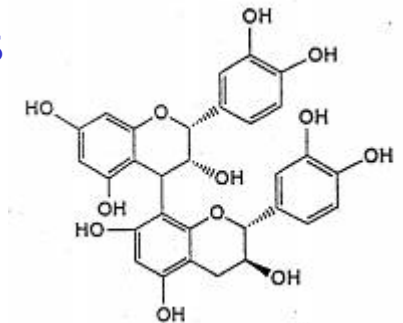
- Flavanols

**catechin,  
epicatechin**



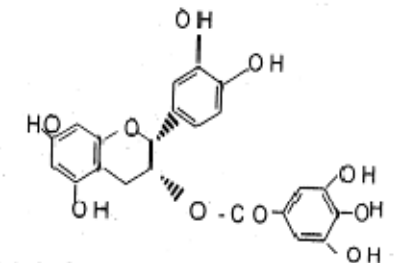
- Proanthocyanidins

**procyanidin B1, B2,  
B3, B4 dimers**



- Mix tannins

**catechin gallate,  
epicatechin gallate**





# SEPIVINOL™ POLYPHENOLS COMPOSITION

SEPIVINOL™ polyphenols profile is the same as that of red wine

<b>Polyphenols</b>	<b>Red Wine (mg/l)</b>	<b>Red Wine reconstituted with PROVINOLS (0.13%) + Alcoholic solution 12% V/V (mg/l)</b>	<b>Output (%)</b>
<b>Phenolic acids</b>			
. Caffeic acid	84	70	83
. p-coumaric acid	44	33	75
. Gallic acid	54	46	85
<b>Anthocyanins</b>			
. Delphinidin 3-G	9	9	100
. Cyanidin 3-G	1	1	100
. Malvidin 3-G	124	125	102
<b>Flavanols</b>			
. Catechin	55	56	102
. Epicatechin	23	23	100
. Epicatechin gallate	4	4	100
<b>Flavonols</b>			
. Myricetin	7	4	57
. Quercetin	11	6	55

This profile is just an extract of the complete profile



# SEPIVINOL™ POLYPHENOLS Analysis



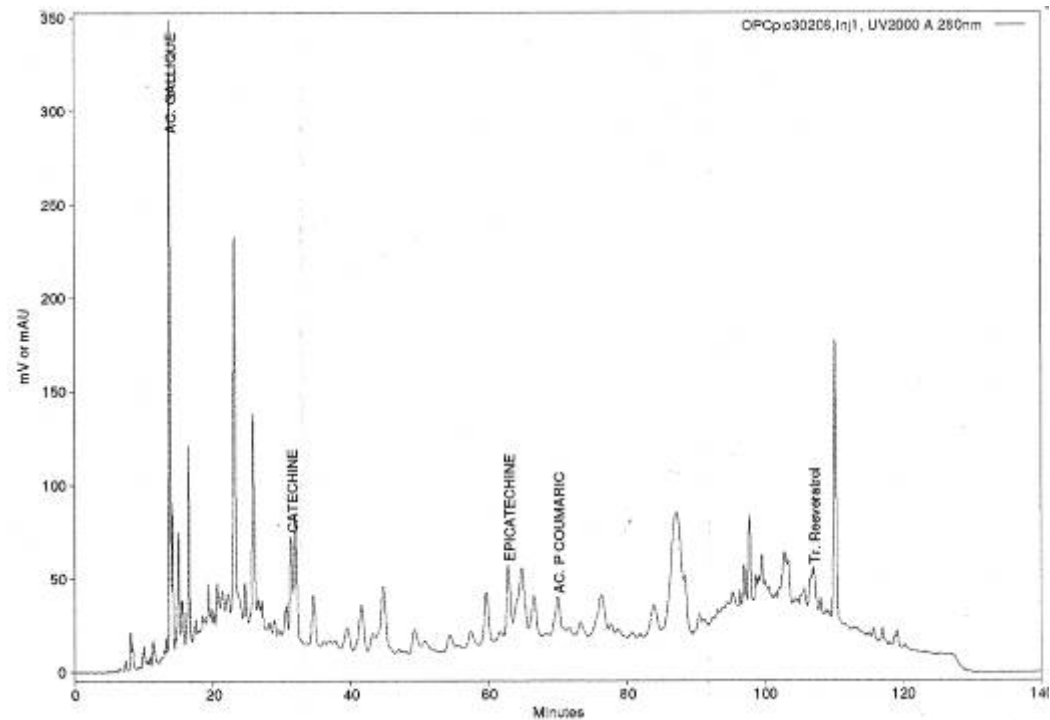
**Total polyphenol content : Min. 95%**

**Measured by absorption et 280 nm**

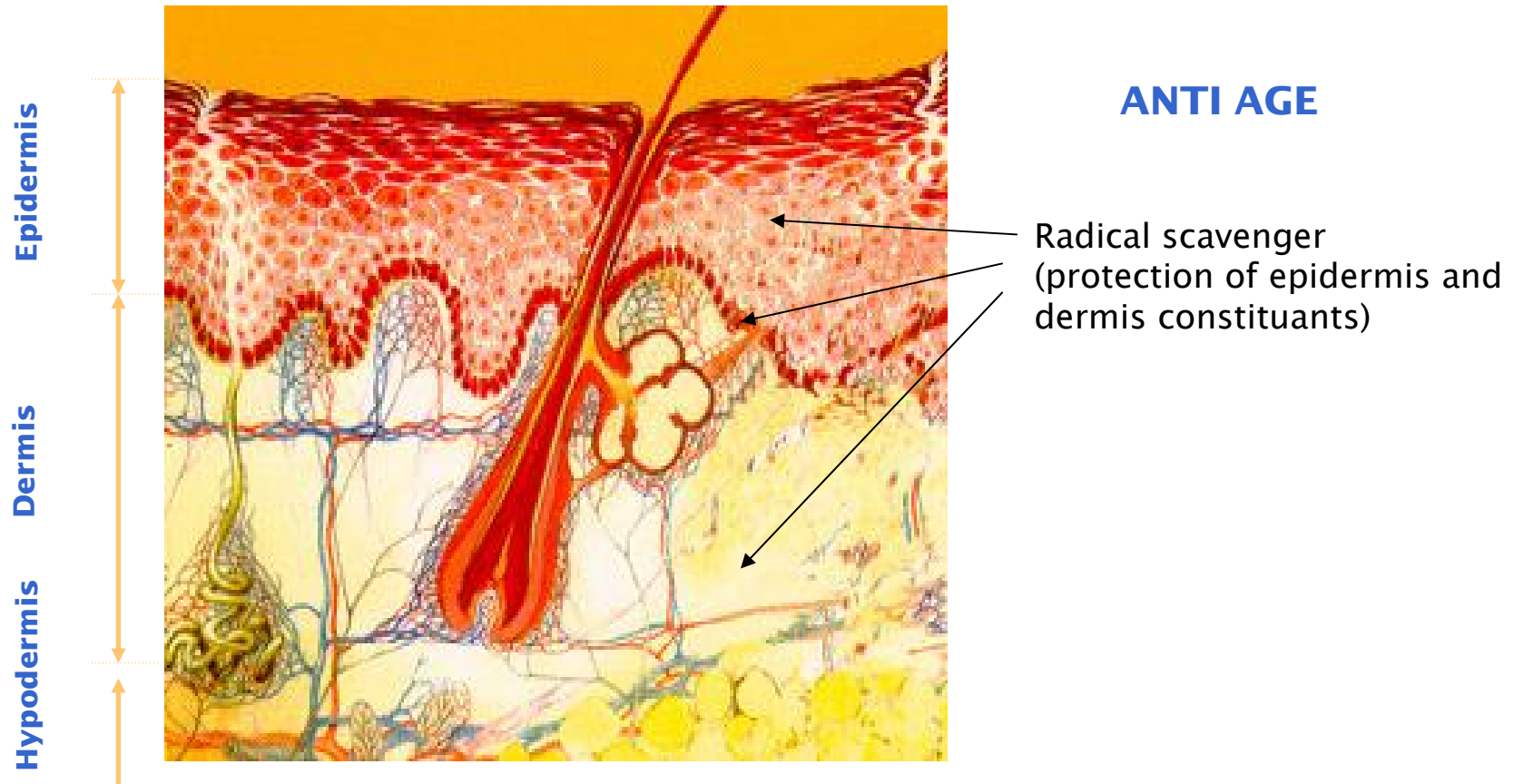
**Expressed as catechin equivalent**

## • HPLC analysis of identified polyphenols

	<b>Analysis (mg/100g)</b>	<b>Results</b>
<b>Monomers</b>	Catechin	1513
	Epicatechin	1759
	Catechin gallate	538
	Epicatechin gallate	103
<b>Oligomers</b>	Proanthocyanidin B1	1399
	Proanthocyanidin B2	869
	Proanthocyanidin B3	310
	Proanthocyanidin B4	916
<b>Polymers</b>	<i>Non specific</i>	17106
<b>Phenolic acids</b>	Chlorogenic acid	544
	p-coumaric acid	179
	Gallic acid	81
	Other	12798
<b>Stilbens</b>	Resveratrol	171



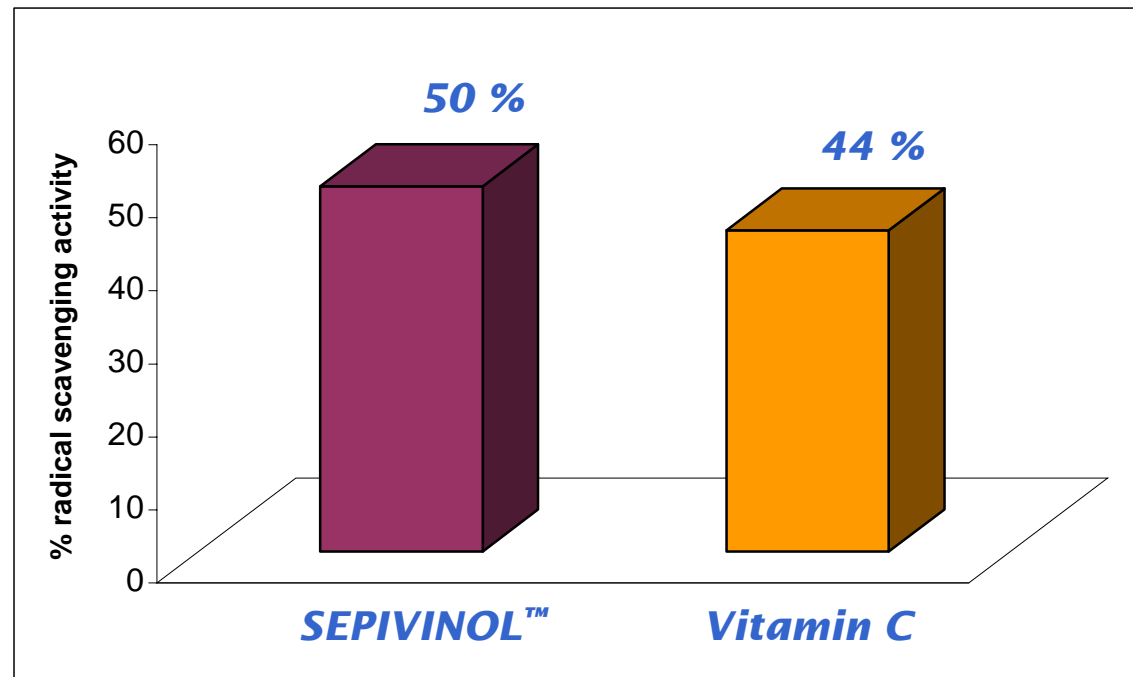
# SEPIVINOL™ MODE OF ACTION





# SEPIVINOL™ COMPARED WITH VITAMIN C

- **Radical scavenging effect : Test in presence of O<sub>2</sub><sup>-</sup>**



- ✓ **Antioxidant properties of SEPIVINOL™ seems to be more powerful than that of vitamin C**





# SEPPIC'S ACTIVE FIGHT AGAINST AGING PROCESS

