

Stem Cell Lumino Whitening Serum

→ *For brighter & radiant skin*

Do you yearn to be fair and smooth away uneven skin tone areas? Have you ever feel annoyed with your dull skin tone? Are you looking for a way to lighten your skin tone and evening out of skin tone by reducing the sharpness of the contours of age spots? But, how many of us have ever stopped to read the product to see what we are putting on our bodies? Have you ever pay attention on the whitening active ingredient used in the product?

There is hundreds of skin whitening products already on the market. Although there are many whitening product available in the market, but it doesn't guarantee its effectiveness. Those whitening products typically contain the active ingredients – hydroquinone, kojic acid, azealic acid and rhododenol content in the product. All of these ingredients inhibit the production of melanin (Melanin is the pigment which darken your skin) in order to brighten/whiten your skin. *Melanin naturally produced by the our body (help to protect your skin from the harmful effects of UV light) but it increase in production with sun exposure, thus,

Not everything we women do in an attempt to enhance our beauty is necessarily good for us, some of the product expose us to the danger of severe skin disorder and possibly even cancer risk through their desire to have paler skin. Hence, we hunt for safe whitening agent and propose you an exclusive *Stem Cell Lumino Whitening Serum*. It is light, readily absorbed to help, protect and nourish the skin. With daily use of this *Stem Cell Lumino whitening serum*, an even, balanced skin tone is restored as skin is left bright and radiant! Your skin stay softer, moisturize, visibly white and younger looking.

This whitening serum contains:

- NO Hydroquinone**
- NO harmful bleaching substance**
- NO preservative added**
- NO mineral oil**
- NO lanolin**
- NO comedogenic ingredients**
- NO animal derived ingredients**
- NO colorant**
- NO petrolchemicals**

Direction Of Use: Apply evenly to a perfectly cleansed and toned face every day and night. For external use only.

The active ingredients contain in the formulation:

1. **INCI Name : Aqua/Propanediol/Boerhavia Diffusa Root Extract**
 - ➔ Prevents (works in the initial phase of melanin synthesis)
 - Treats (evens out skin tone and reduces spots in number and intensity)

2. **INCI Name : Glycerin/Aqua/Olea Europaea Leaf Extract/Ascorbyl Glucoside/Zinc PCA**
 - ➔ Reduce the age spot / Prevents the formation of age spots in its unique way

3. **INCI Name : Aqua/Strelitzia Nicolai Seed Aril Extract**
 - ➔ Restore skin luminosity

4. **INCI Name : Aqua/Glycerin/Avena Strigosa Seed Extract/Lecithin**
 - ➔ Moisturising (Reduce Trans Epidermal Water Loss)

5. **INCI Name : Symphytum Officinale Root Cell Extract /Isomalt /Lecithin**
 - ➔ Speed up your skin renewal through stem cell activation

LCDerma™

What is hydroquinone ?

It is used as a topical application in skin whitening to reduce the color of skin (by decreasing the production of melanin pigments in the skin). It is a strong inhibitor of melanin production, disrupt the synthesis and production of melanin hyperpigmentation.

**This whitening agent is banned in Japan, European Union and Asia.*

Side effects of hydroquinone :

Hydroquinone decrease the melanin pigments in your skin



Sensitive to sunlight (increases exposure to UVA / UVB sunrays)



Carcinogenicity – Increase skin cancer risk



Increase the risk of getting more future hyperpigmentation /

Ochronosis / damage your pigment cells

(Skin turns a bluish and black color)



Contact dermatitis and skin irritation / redness / thick skin / Skin problems.

When ochronosis occur, the skin becomes considerably darker and thicker than normal.

Ochronosis



Fig 1. Increased facial pigmentation secondary to skin bleaching (Photograph courtesy of Dr Frances O.A. Ajose, FRCP-Lagos State University Teaching Hospital)

Active Ingredient 1 :



INCI Name : Aqua/Propanediol/Boerhavia Diffusa Root Extract

A smart depigment, was awarded 1st prize in the category “Most Innovative Raw Material” during the BSB Innovation Prize in In-Cosmetics Paris 2013

Dual action :

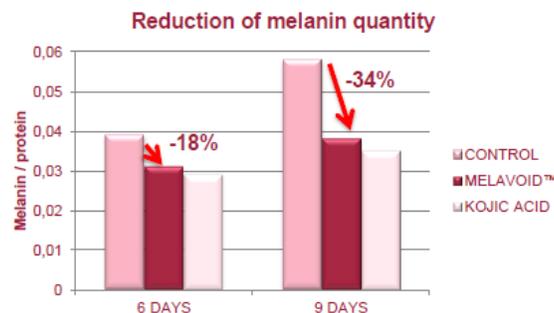
- *Prevents (works in the initial phase of melanin synthesis)*
- *Treats (evens out skin tone and reduces spots in number and intensity)*

It is obtained from the roots of punarnava (*Boerhaavia diffusa*). Standardized in boeravinones. It has lightening, antioxidant and anti inflammatory properties.

- *An active lightening ingredient*
- *Act on the initial mechanisms of pigmentation*
- *Reducing melanogenic activity*
- *Decrease skin tone in a uniform and homogenous way*
- *Reduces the number and intensity of different type of hyperpigmentation spots*

Evaluation Of Melanin Synthesis

Tyrosinase expression/activity ↓ : Amount of melanin ↓

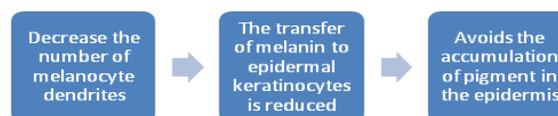


Significant decrease in the melanin/total protein ratio after 9days of incubation with Melavoid™

Kojic Acid caused a decrease in the amount of protein → toxic effect on cells

Melavoid™ did not cause any protein reduction, recording cell viability practically equal to that of the control culture.

Depigmentation Activity



In Vivo Efficacy → Number of spots and pigment imperfections



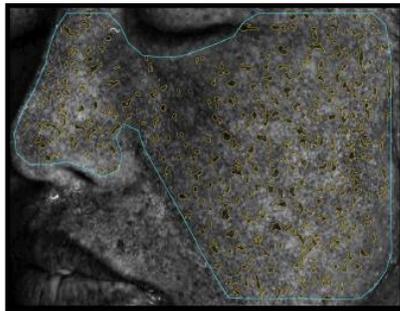
Superficial spots
Before MELAVOID™ treatment
Measurement D0 n° of spots: 82



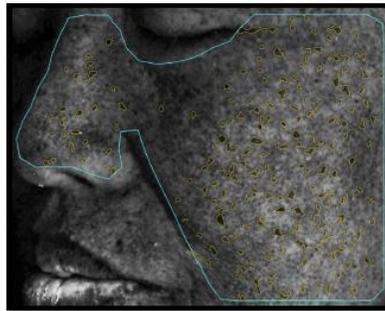
Superficial spots
After MELAVOID™ treatment
Measurement D56 n° of spots: 51

In Vivo Efficacy → Number of spots and pigment imperfections

- ✓ UV Spots : melanin accumulated just under the surface of the skin as a result of solar aggression; these end up being visible. Evaluated with UV light



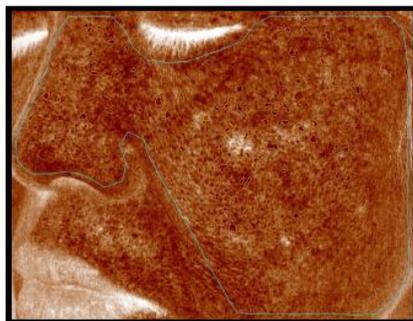
UV spots
Before MELAVOID™ treatment
Measurement D0 n° of spots: 278



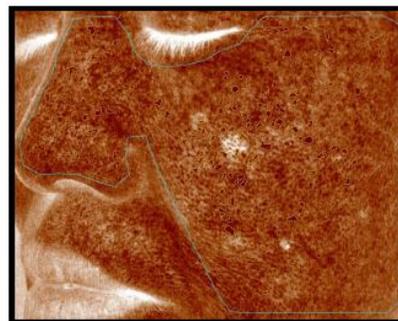
UV spots
After MELAVOID™ treatment
Measurement D56 n° of spots: 180

In Vivo Efficacy → Number of spots and pigment imperfections

- ✓ Brown Spots : deep, inner spots produced by an excess of melanin. They are invisible with the naked eye, though they may end up being visible. Evaluated with polarized light technology.



Brown spots
Before MELAVOID™ treatment
Measurement D0 n° of spots: 54



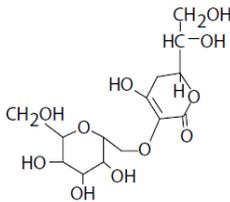
Brown spots
After MELAVOID™ treatment
Measurement D56 n° of spots: 22

Active Ingredient 2:

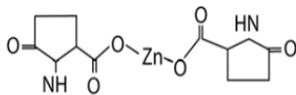
INCI NAME : Glycerin (and) Aqua (and) Olea Europaea Leaf Extract (and) Ascorbyl Glucoside (and) Zinc PCA

Age and sun are the main factors initiating the formation of age spots. A balanced composition of Oleuropein, stabilized Vitamin C and Zinc PCA comprehensively combats the 2 main key factors for the formation of age spots :

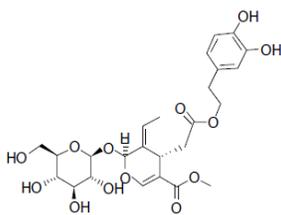
- UV radiation → Pigmentation due to Melanin synthesis
- Ageing → Formation of age pigment Lipofuscin

What is it?

Vitamin C in a stabilized glucosidic form prevents the formation of melanin. It inhibits Tyrosinase, the key enzyme in melanogenesis (production of melanin), at an early stage



Zinc PCA, the zinc salt of pyrrolidonic carboxylic acid, activates the Vitamin C transporter. Ascorbyl Glucoside can be taken up more efficiently by the skin cells and can exhibit a better inhibitory effect on melanogenesis



Oleuropein from olive leaves prevent the formation of the ageing pigment.

Lipofuscin in the skin cells and protects against the development of age spots.

- ✓ Prevents the formation of age spots in a unique way
- ✓ Reduce the size/total area of existing age spots
- ✓ Reduction of contour sharpness of age spots
- ✓ Reduction of Lipofuscin formation
- ✓ The skin tone is evened out
- ✓ Skin looks radiant

Active Ingredient 3:**INCI Name : Aqua (and) Strelitzia Nicolai Seed Aril Extract**

The appearance of skin (skin luminosity) is determined by how much light is reflected back to the eyes. 3 factors influence skin luminosity :

1. **Melanin** : As skin ages, continued UV exposure leads to melanocyte damage causing them to be permanently “switched on” → over-production of melanin → uneven pigmentation and age spots
2. **Collagen** : As skin ages, exposure to factors such as free radicals and UV light, collagen content gradually decrease, damaged collagen is less effective at reflecting light back → dull, less luminous complexion.
3. **Hemoglobin** : It has the role of delivering oxygen to skin. De-oxygenation of hemoglobin can produce blue-toned skin coloration. When hemoglobin breaks down, parts of it is converted into the chemical bilirubin. Inefficient expulsion of bilirubin leads to its build up in the skin, causing it to turn yellow.



Bilirubin is commonly found in most animals because they contain hemoglobin. Plants do not require hemoglobin for their cellular respiration and hence, in general, do not contain bilirubin. However, a group of researchers discovered that some plants belonging to the *Strelitzia* family produce human equivalent bilirubin.



Arils on seeds contain bilirubin.

- It can controls production and degradation of bilirubin

- ✓ ↓ multiple sign of aging
- ✓ Promote even skin tone/radiance
- ✓ Restores skin luminosity
- ✓ Skin tone that appears lit from within
- ✓ Recaptures skin's youthful vitality

Active Ingredient 4:**INCI Name : Aqua (and) Glycerin (and) Avena Strigosa Seed Extract (and) Lecithin**

It is a unique moisturizing agent for skin. It contains extract of black oats and plant-based lecithin. This combination is deeply effective and long-lasting improvement in skin hydration. It increases the skin moisture, lead to visible improvement in the skin condition.



- *Extract of black oats* contains water-retaining substances such as polysaccharides and amino acid.
- Reinforces the skin's own Natural Moisturising Factor (NMF) in storing the water in epidermis.



- *Plant-based Lecithin* (from soybean and GMO-free) strengthens the lamellar lipid matrix of the epidermis.
- Transepidermal water loss (TEWL ↓)

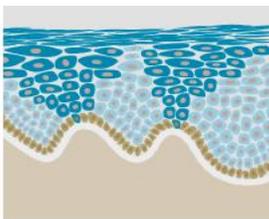
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Active Ingredient 5:**INCI Name : Symphytum Officinale Root Cell Extract /Isomalt /Lecithin**

- ➔ Speed up your skin renewal through stem cell activation
- ➔ Plant stem cells to protect skin stem cells

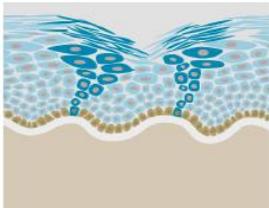


It is obtained from Comfrey *Symphytum Officinale* L. Comfrey used since ancient times. It is one of the oldest known medicinal plants. It speeds up the healing of injuries thanks to its capacity to stimulate cell proliferation and thus promote tissue formation.

Target skin layer : Epidermis layer**Young Skin**

Epidermal stem cells replace aged and damaged skin cells

- ➔ Efficient barrier function
- ➔ Smooth skin

**Aged Skin**

The regenerative capacity of stem/progenitor cells is reduced

- ➔ Epidermal turnover rate decreases
- ➔ Thinner epidermis
- ➔ Dry, rough and dull skin

Symphytum Stem Cell Extract helps :

- 1. Activation of the regenerative capacity of epidermal stem cells**
: Restore the proliferation capacity of epidermal stem cells in a pro-aging medium
- 2. Reduction of the age-related thinning epidermis**
: Formed a thicker and more differentiated epidermis with higher hyaluronic acid content
- 3. Increase in epidermal turnover**
: Reduction of skin renewal time
- 4. Smoothing effect**
: Significant increase in skin smoothness

PRESERVATIVE FREE SYSTEM

INCI Name : Methylpropanediol (and) Caprylyl Glycol (and) Phenyl Propanol

Why we need preservative in our product :

- ❖ Extend product lifespan
- ❖ Prevent Microbial Growth
- ❖ Preserve the quality of the product

Conventional Preservative System :

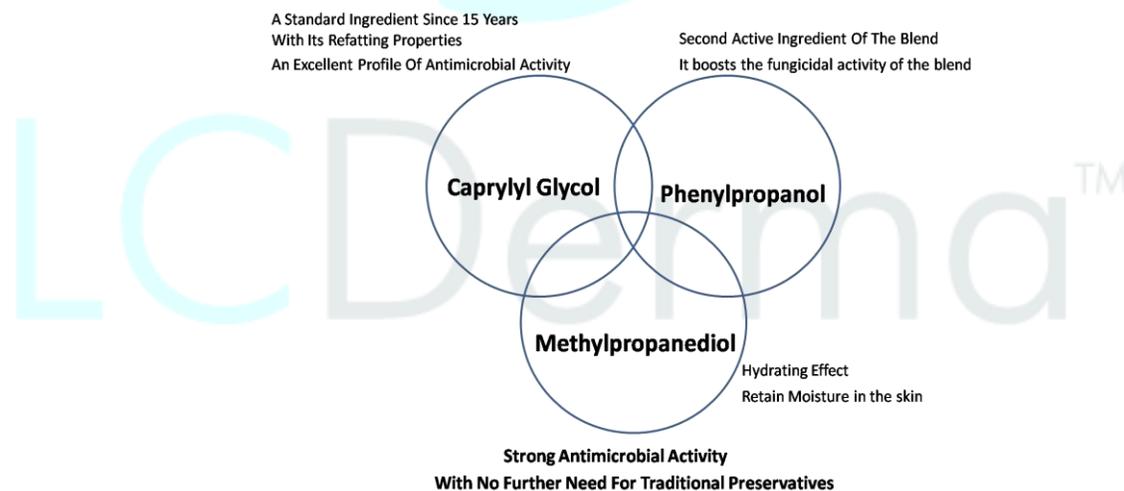
**Prabens,Phenoxyethanol,Methylchloroisothiazolinone/Mehtylisothiazolinone/
Formaldehyde based preservative eg. DMDM Hyantoin, Quaternium-15**

Preservatives in skincare product used in minuscule quantities to extend the life of a product; but some consumers are sensitive to them that a very small amount ends up causing some very big skin problems, especially with repeated applications.

They may have skin reactions and allergies to preservative, causing skin irritations, allergic skin reaction and skin sensitization.

Here, we introduce a series of skincare product which is formulated with preservative free system.

What is the preservative system we used ?



- ✓Reliable Paraben Free Preservation
- ✓An alternative to conventional preservative system
- ✓Effectively protect the product against microbiological spoilage
- ✓Provide reliable efficacy with a low level of surface active : reduce irritations/stinging potential
- ✓While preserve the product, it increase the moisture level in t