

# Unwind Sacred lotus

*Decreasing stress transmitted to skin*

## A STORY

**The Sacred lotus** | *Nelumbo nucifera, Nelumbonaceae*  
**A symbol of divine purity**

*Thanks to its stem that can be up to 1.80 m long, its big and white pinkish flower slightly fragrant rises above ponds. As a hardy species coming from South East Asia, it is associated with Buddha or with the creation myth in the Hindi religion; it is a sacred plant, a symbol of purity and of divine beauty. Entirely edible, it is cultivated and eaten in all Asia; nevertheless its fragile rhizoms make industrial production very difficult. It is used in many traditional Asian medicines and its seeds can be preserved many dozens of years with no alteration.*

## Key points

### An active plant cell

Developed to deliver the highest amount of original active molecules.

### A high tech natural ingredient

Created to preserve and improve the identity and the benefits of a natural product.

### A global relaxing action

Improves the skin cell relaxation

Because skin, like any part of our body, suffers from a limited or constant stress due to our way of life, it is necessary to act on the processes it starts. For a relaxed, radiant and healthy skin.



## PRODUCT BENEFITS

### Balancing

#### Soothing

Calming, decreases irritations and pain sensations through an action on neuro-mediators.

#### Radiance

Helps skin to get a tone more radiant.

#### Relaxing

Helps to relax skin cells by decreasing the biochemical stress

*To be used in skincare or make-up products like cream, fluid, serum, balm, lotion, milk, foundation, concealer, etc., in any cosmetic or skincare product dedicated to relax skin.*

**NÆOLYS**

**Related products** | PURIFY WHITE WATER LILY | SOOTHING LIGHT  
APPLE TREE | NIGHT RESTORE COTTON & ALMOND TREE

## HOW IT WORKS

# Unwind Sacred lotus: regulates the action of key neuromediators in skin

Unwind Sacred lotus acts at the level of links between nervous system and skin cells. Indeed, skin has a dense and fine innervation, including many sensitive nerve endings and neurocutaneous connexions (from cell to cell). Unwind Sacred lotus will act on the release of neuromediators (about 30 in skin), chemical substances which transmit nerve information, by decreasing their presence. Because nervous system can modulate all skin functions by changing properties of cells after that neuromediators activate their specific receptors.

Thanks to those actions of a controlled relaxation, skin can get back its balance and keeps on working normally.

## Clinical testing results

### Relaxing effect after 21 days

#### Results of the study (auto-evaluation)

##### Declaration of the women in the panel

- 98% declare that their skin is like regenerated and relaxed
- 96% declare that their skin is more radiant
- 98% declare that they feel a sensation of well-being
- 100% declare that feelings of tightness are soothed

##### Conditions of the study

- Survey made on 20 women - from 20 to 65 year old, with dry, damaged and aggressed skins during 21 days
- Emulsion with 0.1% of Unwind Sacred lotus (powder form)
- Auto-evaluation

## Technical information on the formulation of Unwind Sacred lotus

### INCI name of cells

nelumbo nucifera leaf cell extract

### form

cells (20%) in glycerin or sunflower oil (80%)

### aspect

liquid

### concentration

starting at 0.5%

### dispersible

in any formulation

## In vitro testing results

### The skin nervous system

The skin nervous system is a part of the peripheral nervous system - that means all nerves that allows information to circulate between the central nervous system (made with encephalon, spinal cord and retina) and the rest of the body. It is rich and complex as the three skin layers, epidermis, dermis and hypodermis are innervated. As skin is in permanent contact with the external environment, it interacts with different external factors, physical (thermal, mechanical, electrical, UV rays), or chemical from different origins (allergens, inflammation). It answers also to stimulations coming from blood circulation or emotional stresses. Besides, the central nervous system can modulate directly or indirectly important functions of skin like vasomotricity, thermoregulation, pili erection, barrier function, growth and differentiation of tissues, cicatrization, immune answer, and inflammation. Indeed there are very big relations between nervous fibers and skin cells: first skin nerve fibers produce many neuromediators (substance P, vaso-active intestinal peptide (VIP), somatostatine, calcitonin-gene related peptide (CGRP), gastrin-releasing peptide (GRP), neuropeptide Y, peptide histidine-isoleucine (PHI), neurotensine, neurokinines A and B, bradykinine, acetylcholine, catecholamines, endorphines and enkephalines) and neurohormones (prolactine, melanotropine (MSH) or corticotropine (ACTH)). And skin cells (keratinocytes and immune cells) can not only produce but also express receptors towards those neuromediators.

Then, Naolys decided to study 3 neuromediators in the skin nervous system: the substance P, the «calcitonin-gene related peptide» or CGRP, and acetylcholine, involved in inflammation or pain transmission.

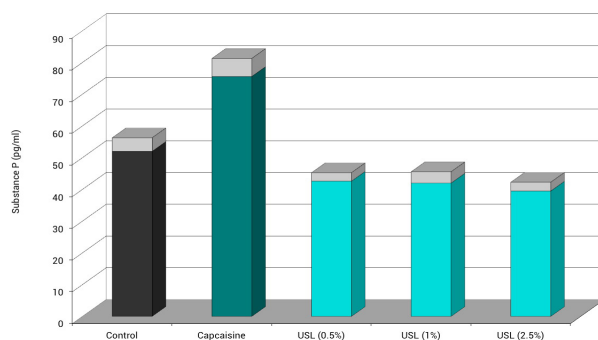
### Study of the substance P

The substance P

Among peptides involved in the transmission of painful messages, the substance P is the best known, as it was the first peptide discovered. Synthetized by the free terminals of C fibers (unmyelinated nerve fibers), it has a vasodilator action that leads to algogene inflammation (that causes pain).

In the following *in vitro* test, we used capsaicine to compare the effect of Unwind Sacred lotus. This is a chemical reactor made from pepper, that can stimulate sensorial nerve fibers: it can indeed release substance P or CGRP. The effect is translated to the central nervous system as a painful inflammation.

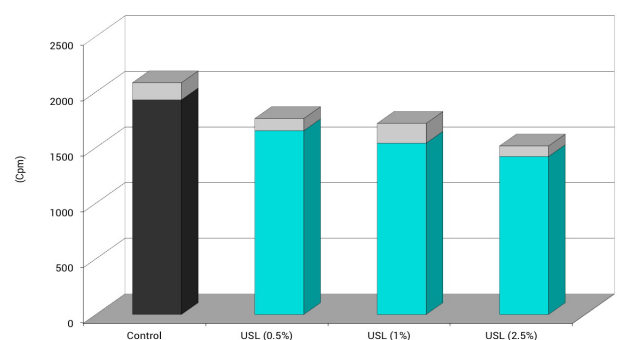
#### Study of the substance P (release)



##### Decrease of the release of the substance P

→ At concentrations of 0.5%, 1% and 2.5%, decrease of the release of substance P, respectively by 18%, 19% and 24% compared to the untreated control

#### Study of the substance P (receptor)



##### Decrease of the fixation of substance P on its receptor

→ At concentrations of 0.5%, 1% and 2.5%, decrease of the fixation of substance P on its receptor respectively by 14%, 20% and 26% compared to the untreated control

## Study of the CGRP (calcitonin gene related peptide) and the acetylcholine

### The CGRP

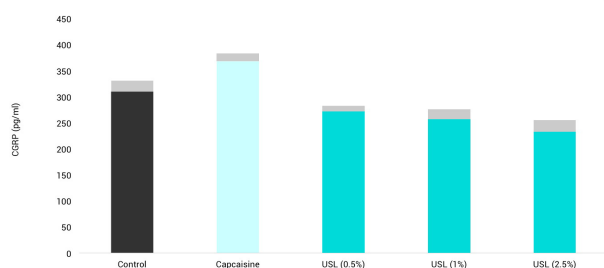
It is also a peptide involved in inflammation, with a vasodilator activity.

In the following *in vitro* test, we used capsaicine to compare the effect of Unwind Sacred lotus. This is a chemical reactor made from pepper, that can stimulate sensorial nerve fibers: it can indeed release substance P or CGRP. The effect is translated to the central nervous system as a painful inflammation.

### The acetylcholine

It is a neuromediator of the autonomic skin nervous system located in the dermis. There, nerve fibers are located especially at the level of the blood and lymphatic vessels, erector pili muscles and hair follicles: they are essential in the regulation of sudoriferous (sweat) glands, vasomotricity, blood flow, therefore thermoregulation.

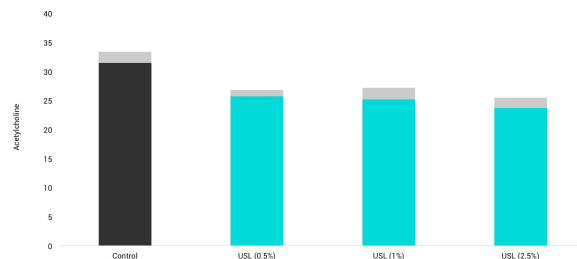
### Study of the release of the CGRP



#### Decrease of the CGRP release

→ At concentrations of 0.5%, 1% and 2.5%, decrease of the release of the CGRP respectively by 12%, 17% and 25% compared to the untreated control

### Study of the acetylcholine



#### Decrease of the acetylcholine release

→ At concentrations of 0.5%, 1% and 2.5% decrease of the release of acetylcholin respectively by 18%, 20% and 25% compared to the untreated control