

## **ETHERNIUM NUTRA**

The first cosmeceutical able to significantly reduce Beta-Gal levels increased by age

WHAT

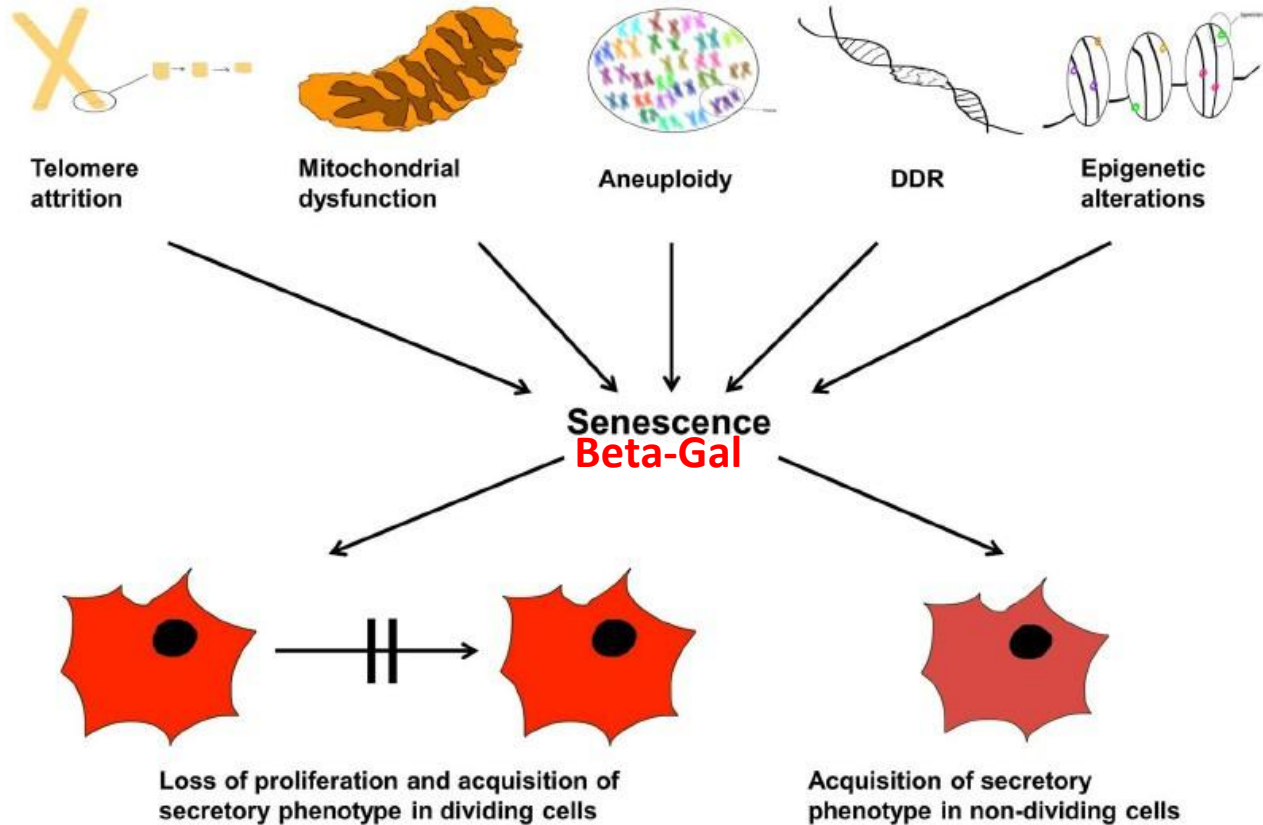
WHY

WHICH

WHEN



**DOUBLE PEPTIDE STRATEGY:** Beta-Gal is the core senescence molecular messenger in aging cells. Our nutraceutical lowers Beta-Gal expression, rejuvenating cells.





- Human ageing is characterized by a progressive loss of physiological functions, increased tissue damage and defects in various tissue renewal systems.
- Age-related decreases of the cellular replicative capacity is directly linked to lysosome lower function and a set of enzymes is then hyperproduced.
- Lysosome failure leads to much higher sensitivity to oxidative stress, accumulation of DNA damage, shorter telomeres and over-expression of altered version of some cell proteins including P38.
- All these senescence hallmarks are produced at the same time that Beta-Gal protein is excessively produced in aging cells.
- Lowering the levels of Beta-Gal has become a target of the antiaging industry for the last 20 years.
- We present the **FIRST COSMECEUTICAL ABLE TO SIGNIFICANTLY LOWER BETA-GAL.**



## WHAT

We present the first cosmeceutical product specifically designed to decrease Beta-Gal: the major senescence molecular marker.

### ETHERNIUM NUTRACARE COSMECEUTIC

- Aging is a natural process with a series of molecular and cellular hallmarks. The most important one is expression of senescence marker Beta-Gal. The higher the level of Beta-gal, the higher and faster senescence is, related to cell unbalanced metabolism.
- Lowering Beta-Gal has been the goal for skin care industry in the last 20 years.
- Aged cells have an altered metabolism that can be counteracted by decreasing DNA protection peptides.
- The use of specific Ethernium Skincare products combined with Ethernium Nutracare cosmeceutical treat skin both from the outside and from the inside.
- Ethernium Nutracare's composition is based on both the highest nutrients and antioxidants and also peptide SP55, patented molecules able to decrease Beta-Gal expression in skin up to 75%.

## WHAT: DOUBLE PEPTIDE STRATEGY

We present FIRST TWO-PEPTIDE COMBINED STRATEGY to both attack senescence and energy depletion. Edible treatment must be followed at least during 90 days. Maximum effect is reached between 120 and 150 of treatment.

- SP55 peptide stabilizes telomeres and cell DNA.
- SP55 peptide helps rebalance biochemical processes in senescent cells, lowering Beta-Gal level

This causes an antiaging double effect: **REDUCTION OF FREE RADICALS** and **INCREASE OF HEALTHY STEM CELLS**

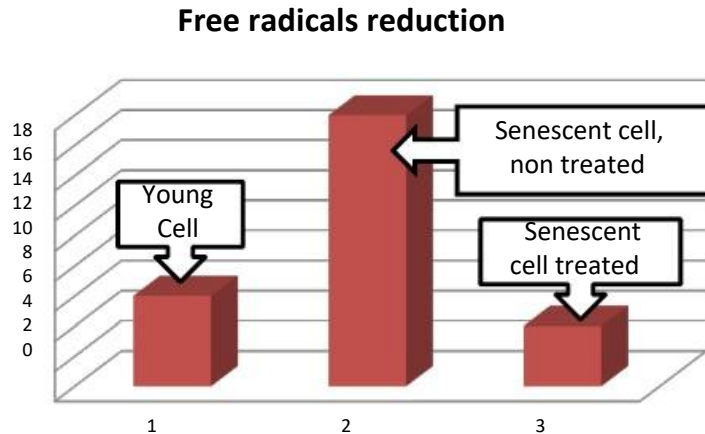


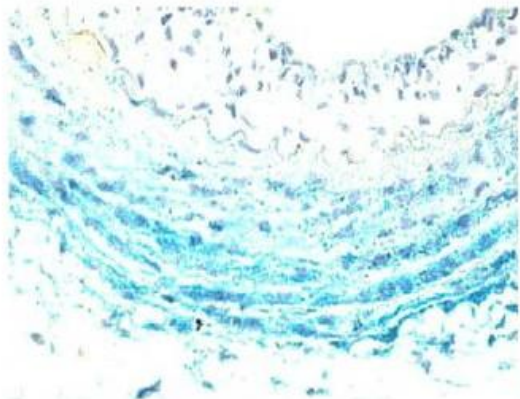
Fig. 1 Effect of combining SP55 peptides on the final amount of free radicals accumulated inside stem cells. Dual, 120 days treatment, lowers free radicals 4 times, even to pre-senescent levels

## DOUBLE PEPTIDE STRATEGY

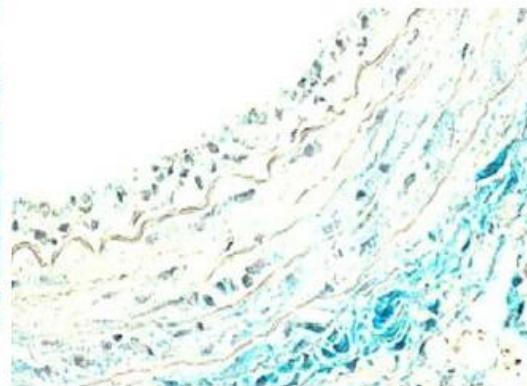
- We present a cosmeceutical product specifically designed to decrease skin senescence.

### ETHERNIUM NUTRACARE COSMECEUTIC

- Aging is a natural process with a series of molecular and cellular hallmarks. The most important one is expression of senescence marker Beta-Gal. The higher the level of Beta-gal, the higher and faster senescence is, related to cell unbalanced metabolism.
- Lowering Beta-Gal has been the goal for skin care industry in the last 20 years.
- Aged cells have an altered metabolism that can be counteracted by anti Beta-Gal protection Peptides.
- The use of specific Ethernium Skin Care products combined with Ethernium Nutracare cosmeceutical treat skin both from the outside and from the inside.
- Ethernium Nutracare's composition is based on both the highest nutrients and antioxidants and also Peptide SP55, patented molecule able to decrease Beta-Gal expression in skin up to 75%.



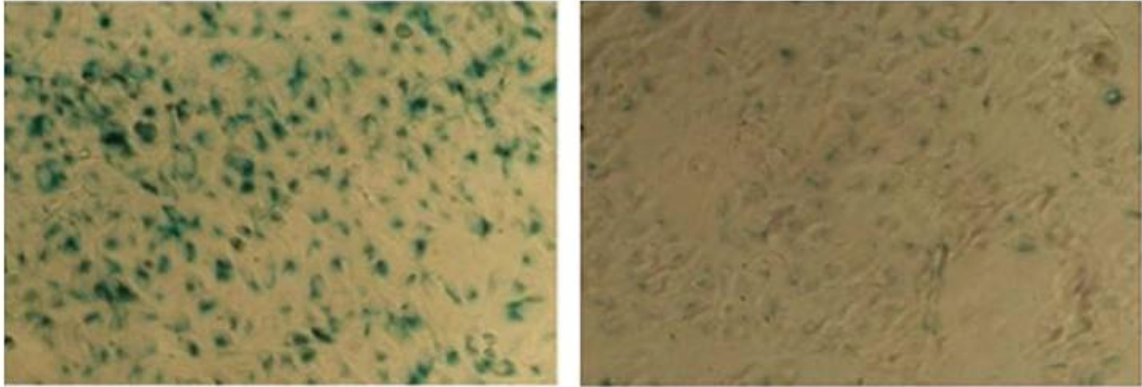
**Non-treated  
senescent skin**



**Treated  
senescent skin**

Fig. 2 Effect of combining SP55 peptide on the expression of senescent marker Beta-Gal. (Left) Non- treated cultured skin graft, (right) treated skin graft. After 90 days, senescence marker Beta-Gal (light blue) decreased 75% versus control (left panel). Beta-Gal was detected by S-mAb standardized techniques.

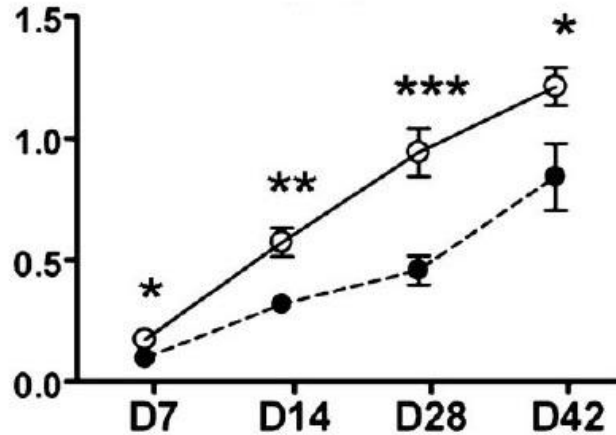
# NUTRACEUTICAL DOUBLE PEPTIDE STRATEGY PLUS ETHERNIUM SKIN CARE (Day Crème and Serum)



Before treatment (left panel), 95% of skin stem cells show a senescent phenotype by the overexpression of Beta-Gal (blue). After 120 days with the nutraceutical double peptide strategy combined with the SP55 peptide-based Ethernium Skin Care.

# NUTRACEUTICAL DOUBLE PEPTIDE STRATEGY PLUS ETHERNIUM SKIN CARE

(Day Crème and Serum)



Increase of healthy stem cells treated only with Ethernium Skin Care reaches 90% over day 42, while a combined treatment of Ethernium Skin Care plus Ethernium increases efficiency over 125%. Experiments performed on triplicate skin stem cells cultures from a 74 year old Caucasian female. Vertical axis shows net variation compared to non-treated cells on day 0, which is 0.





## WHY

Senescence is a natural process genetically programmed in our bodies. We can fight against senescence in different ways. Fighting against senescence is more effective when we combine both internal and external approaches.

Ethernium Skin Care reaches skin stem cells from the outside, bringing a regenerative peptide plus nutrients, while Ethernium Nutracare reaches skin stem cells from the inside of the body. Since each approach has pros and cons, including delivery efficiency of different components and active ingredients, we found that a combined approach guarantees maximum stem cell increase on senescent skins: 125% increase on net amount.

**OUTSIDE IN**  
**TUO EDIZIONI**