

# MelanoGray<sup>™</sup> The hair color restoring essence



MelanoGray<sup>™</sup> is an anti-hair graying essence that is sustainably obtained by upcycling the peel paste from unique organic Chios mandarins. Thanks to its melanin stimulating and antioxidant activity it markedly reduces the quantity of gray hair in both men and women.

#### The issue

The pigmentation of hair is the result of a complex interaction that takes place at the hair follicle between melanocytes, matrix keratinocytes, and dermal papilla fibroblasts. Hair graying is defined as the progressive loss of natural hair pigmentation. The mixture of darker, normally pigmented hair and increasingly lighter, less pigmented hair is perceived as progressive graying. While genetic factors play the most predominant role in hair graying, psychoemotional stress, hormonal variations, and various diseases, as well as malnutrition and the use of alcohol and certain drugs have been linked to an increased likelihood of premature graying. In addition, environmental factors - such as smoking, UV radiation, and pesticides - trigger the occurrence of gray hair. New scientific studies have recently confirmed that emotional stress not only promotes biological aging but also hair graying.

## The solution

MelanoGray<sup>™</sup> is an attractive upcycling ingredient derived from a unique locally sourced mandarin that leads to a longlasting significant reduction of gray hair, even during times of stress when hair graying can be accelerated. In vitro and in vivo studies have demonstrated that MelanoGray<sup>™</sup>:

- Stimulates melanin production through several mechanisms, including the increased production of eumelanin, enhanced melanocyte proliferation, and the protection of melanocytes due to its antioxidant properties.
- Reduces the negative effects of noradrenaline-induced stress in melanocytes.

## The benefit

- Reduces the gray hair ratio by 21.6%
- Long-lasting repigmentation effect (> 1 month)
- Stimulates melanin synthesis
- Enhances resistance of melanocytes against stress

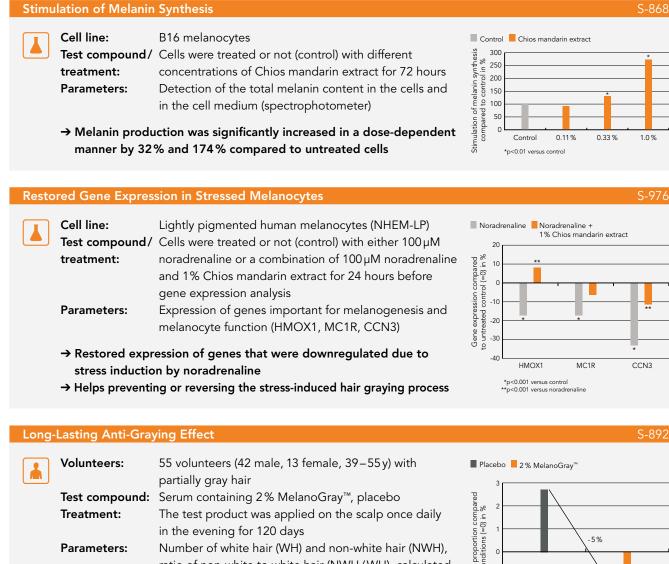


## The plant

The Chios mandarins exclusively grow under very specific conditions, which are optimally found in the beautiful historic orchards of the Greek island of Chios. MelanoGray<sup>™</sup> was produced from the leftovers of these special mandarins that are used in the distillation process of perfume production and supplemented with acetyl tyrosine, which is the amino acid substrate in the melanin synthesis.

**INCI (EU/PCPC) Declaration:** Citrus Reticulata Extract/Citrus Reticulata (Tangerine) Extract (and) Acetyl Tyrosine (and) Pentylene Glycol (and) Gluconolactone (and) Sodium Benzoate (and) Aqua/Water

# Study results



in the evening for 120 days **Parameters:** Number of white hair (WH) and non-white hair (NWH), ratio of non-white to white hair (NWH/WH), calculated based on pictures taken with a TrichoScan® microcamera at day 0, after 120 days of product application and 30 days after the last product application (day 150)

 $\rightarrow$  Reduction of gray hair by 5% compared to the placebo group

→ The NWH/WH ratio significantly increased by 21.6% after 120 days of treatment (decrease in the placebo group)

→ Long-lasting effect without treatment (> 1 month)

#### In Addition

-5%

Upregulation of Melanogenesis-Supporting and Antioxidant Genes: Chios mandarin extract was shown to stimulate melanogenesis through several mechanisms, including the increased production of eumelanin, enhanced melanocyte proliferation and protection of melanocytes due to antioxidant properties.

#### **Recommended use level:** 1–2%

Characteristics: Liquid, water-soluble, without alcohol Applications: Anti-hair graying serum, intensive anti-hair graying lotion for women and men, protective pigment restoring elixir, premature graying prevention treatment

Moreover: Organic source • upcycling ingredient • unique source from a historical place

#### Benefits MelanoGray<sup>™</sup>

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to

- Enhances resistance of melanocytes

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