

  
**CHANTARELLE**  
Laboratory Derm Aesthetics



# PLANT PLASMA

## GROWTH FACTORS

INNOVATIVE NON-INVASIVE  
METHOD OF SKIN REJUVENATION,  
REGENERATION AND RESTRUCTURING

PHOTODYNAMIC THERAPY METHOD PDT LASER LLLT / LED R 650nm / UV 420nm  
MICRO-NEEDLE METHOD

# PLANT PLASMA

## GROWTH FACTOR IN NON-INVASIVE SKIN REGENERATION AND RESTRUCTURING

### HOW DO GROWTH FACTORS WORK?

Cellular growth factors are signalling substances naturally occurring in the human body, including the skin, which stimulate growth, proliferation and differentiation of cells. These are proteins or peptides or non-protein substances (steroids), which are responsible for intercellular signalling. Their task is to communicate between the cells of the epidermis and the skin and to transmit the signal to the appropriate cells. The secreted growth factors are recognised by the receptors - surface proteins of the target cells, which initiates a cascade of various reactions, including the activation of natural skin renewal processes to rejuvenate the skin.

Growth factors are functional transmitters between cells, and because growth factors play a key role in skin renewal, they are essential for skin rejuvenation.

The growth factors important for the skin include: EGF (epidermal growth factor), FGF (fibroblast growth factor), PDGF (platelet-derived growth factor) and TGF (transforming growth factor).

### IMPORTANCE OF GROWTH FACTORS – SIGNAL FOR REJUVENATION AND REPAIR

As people age, the effectiveness of skin regeneration processes decreases as the skin loses its elasticity, and wrinkles, dryness, roughness, discolouration and other signs of ageing appear. In addition, the ability of the skin's growth factors to trigger repair processes decreases. Advanced rejuvenation treatments are based on using the body's natural abilities to repair and intensify natural regeneration processes, which helps slow down the aging process and regain a healthier and younger appearance of the skin.

A way to activate targeted regeneration processes is to use products containing natural signalling substances of an organism activating the cellular growth and cell proliferation processes, i.e. GROWTH FACTORS. Such substances can be isolated from biological material or produced using biotechnological methods.

REGENERATIVE COSMETOLOGY – BIO-STIMULATION - is a trend in aesthetic cosmetology, which aims to activate natural skin regeneration processes in the skin affected by decelerated regeneration caused by age and other factors of aging.

### PLANT PLASMA CHANTARELLE –GROWTH FACTORS TARGETING SKIN PROBLEM

**PLANT PLASMA CHANTARELLE** are modern regenerative cosmetology therapies using growth factors which in a natural way stimulate the skin regeneration. Obtaining a **targeted skin regeneration effect** is possible thanks to the application of modern biotechnological methods, thanks to which **GROWTH FACTORS IDENTICAL WITH HUMANS** were produced and isolated from plants, while maintaining the highest level of safety. The growth factors obtained are synthetic peptide human growth factors.

The obtained **biocompatible human growth factor formulas** such as transforming beta growth factor (TGF- $\beta$ ) or epidermal growth factor (EGF) **are identical with the growth factors produced in the skin**; they are also sterile and highly active. At the same time they are free from \* human, animal or bacterial ingredients, \* endotoxins \* and preservatives.

Growth factors are effective both when applied to the skin surface (penetration through hair follicles or sweat glands, or surface interactions resulting in a physiological effect) and when applied using micro-needles or laser techniques.

**PLANT PLASMA CHANTARELLE** treatment line is an intensive dermo-therapy based on GROWTH FACTORS, stimulating the skin regeneration, and having an anti-ageing and revitalising effect, which thanks to the **activation of natural renewal processes improves skin parameters: density, elasticity, hydration, reduces wrinkles and strengthens the structure of collagen**. Includes treatment formulas and skin care creams, which are based on plant growth factors with proven effects:

- **EGF Epidermal Growth Factor:** with intensive anti-ageing properties, revitalises the skin and improves skin appearance – reduces flabbiness and wrinkles, regenerates the epidermis, normalises moisture and pores. The improvement of skin parameters and appearance is the effect of the stimulation of the proliferation of keratinocytes, and thus of the increased collagen synthesis (young collagen +123% within 7 days of application), elastin (+45% within 7 days of application) and fibronectin. The effect is also an increase in the biosynthesis of hyaluronic acid in keratinocytes under exposure to EGF.

- **TGF- $\beta$  Transforming Beta Growth Factor:** rejuvenates the skin affected by chronological ageing and ageing caused by external factors by promoting increased fibroblast divisions, increasing the level of expression of extracellular matrix proteins such as collagen, fibronectin and integrin, and simultaneously inhibiting matrix protein degradation by inhibiting extracellular matrix metalloproteinases.

## PLANT PLASMA – GROWTH FACTORS

### INNOVATIVE NON-INVASIVE METHOD OF SKIN REJUVENATION, REGENERATION AND RESTRUCTURING

- guarantees a high level of skin repair effectiveness;
- thanks to the targeted action of the plant growth factors, enables the optimal selection of the appropriate PLANT PLASMA product tailored to the skin problem;
- the peptide systems used guarantee complete safety of use and repeatability of the formula and ensure durability of the products;
- formulas do not contain any ingredients of human, animal or bacterial origin or endotoxins;
- the procedures are non-invasive, painless, and suitable for all-year-round treatments.

The effects of the stimulating action of plant growth factors are multiplied by the photodynamic application method PDT



# PLANT PLASMA PRODUCTS

PLANT PLASMA CHANTARELLE is an intensive dermo-therapy based on GROWTH FACTORS, stimulating the skin regeneration, and having an anti-ageing and revitalising effect; reduces wrinkles and strengthens the structure of collagen. Improves skin parameters: density, elasticity, and hydration; for face, eye area, neck, décolletage and hand skin.

## PDT Serum EGF Plant Plasma Strong Repair Booster

for intensive stimulation of revitalisation and rejuvenation of the face, eye area, neck, décolletage and hand skin requiring moisturisation, refirming and wrinkle smoothing. It has an anti-ageing effect - it regenerates and smooths the epidermis, increases skin hydration and elasticity.

- Thanks to its ability to stimulate the synthesis of collagen, fibronectin and elastin, it reduces wrinkles and increases skin elasticity, strengthens the structure of elastic fibres.
- Thanks to the activation of natural renewal processes, it stimulates keratinocyte migration, strengthens the cohesion of the epidermal barrier and increases the synthesis of extracellular matrix, restoring healthier and younger appearance of the skin, and an even skin tone and surface.
- Contains antibacterial ingredient Equibiome™ for maintaining the balance of the skin resident flora (microbiome) with anti-bacterial and anti-inflammatory properties.



MICRO-NEEDLE  
METHOD  
UV  
R  
PDT

**INDICATIONS:** skin with visible signs of aging, dry, poorly elasticised, with fine wrinkles, uneven skin tone, and dull.

**EFFECTS:** stimulation of renewal to combat symptoms of aging; regeneration of epidermis, reduction of wrinkles and roughness; increased elasticity; physiological skin rejuvenation; stimulation of hyaluronic acid synthesis; stimulation of moisturising mechanisms and collagen production; improvement of elastic fibres structure.

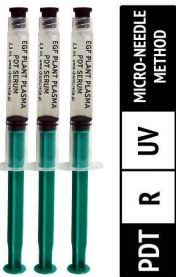
**APPLICATION:** PDT LASER LLLT/LED R 650nm and UV 420nm or micro-needle method or manually

**ACTIVE INGREDIENTS:** TGF-β2 - transforming growth factor beta, Equibiome™ - burdock root extract to protect the skin microbiome  
CP189301 kit 3 pcs. x 2.5ml; CP189302 1 pcs. 2.5ml

## PDT Serum TGF-β2 Plant Plasma Strong Collagen Booster

for intensive stimulation of collagen and restructuring of the face, eye area, neck, décolletage, hand skin; for skin with visible signs of chronological aging and ageing caused by external factors – with deep wrinkles, lack of elasticity and damaged collagen structure.

- Strongly stimulates extracellular matrix renewal – the synthesis of collagen, fibronectin and integrin by increasing fibroblast proliferation and inhibits matrix degradation by counteracting metalloproteinases, thus strengthening the structure of skin supporting fibres and reducing wrinkles.
- Increases the synthesis of GAG and hyaluronic acid – increases skin elasticity and moisture.
- Thanks to the activation of natural regeneration processes, improves the skin structure, leaving the skin looking younger, smoother and more elastic.
- Contains antibacterial ingredient Equibiome™ for maintaining the balance of the skin resident flora (microbiome) with anti-bacterial and anti-inflammatory properties.



MICRO-NEEDLE  
METHOD  
UV  
R  
PDT

**INDICATIONS:** deep wrinkles, skin with impaired collagen production caused by chronological aging, exposure to the sun, stress, environmental pollution.

**EFFECTS:** increase in fibroblast proliferation and myofibroblast differentiation, stimulation of extracellular matrix (ECM) proteins' expression such as collagen I, collagen III, fibronectin and integrin, inhibition of matrix degradation by stimulating the synthesis of matrix metalloproteinase inhibitors (MIM) (TIMP), increase in the synthesis of GAG and hyaluronic acid to enhance skin firmness, elasticity and hydration.

**APPLICATION:** PDT LASER LLLT/LED R 650nm and UV 420nm or micro-needle method or manually

**ACTIVE INGREDIENTS:** TGF-β2 - transforming growth factor beta, Equibiome™ - burdock root extract to protect the skin microbiome  
CP189401 kit 3 pcs. x 2.5ml; CP189402 1 pcs. 2.5ml

## EGF Plant Plasma Repair Lifting Day Cream SPF 20 UVA/UVB Strong Repair Booster

for intensive stimulation of revitalisation and rejuvenation of the skin, with lifting, smoothing and moisturising properties. For skin requiring hydration, firming and wrinkle smoothing. Contains the epidermal growth factor EGF, which thanks to its natural ability to stimulate the synthesis of collagen, fibronectin and elastin reduces wrinkles and increases skin elasticity, strengthens the structure of elastic fibres. Reduces the signs of aging - regenerates and smooths the skin, increases hydration, strengthens skin elasticity. The cream is enriched with moisturising, lifting and antioxidant ingredients. Contains biomimetic natural glycopolymers with film-forming and protective properties to protect the skin against damage caused by external factors (PM dusts, allergens, irritants). They ensure a natural lifting and smoothing effect. Hyaluronic acid with different particle sizes moisturizes different levels of the skin, smoothes wrinkles, and strengthens skin elasticity. The formula is complemented by antioxidant and regenerating ingredients - licorice, saponaria and avocado extracts as well as allantoin, calendula oil macerate, avocado oil, Shea butter and vitamin E

Active ingredients: EGF epidermal growth factor, Filmexel® - biomimetic natural glycopolymers, hyaluronic acid, extracts of licorice, saponaria, avocado, avocado oil, marigold oil macerate, Shea butter, vitamin E, allantoin, UVA/UVB filters

CD1471 50 ml



## EGF Plant Plasma Repair Night Cream Face & Eyes Strong Repair Booster

Intensively stimulates the renewal and rejuvenation of the skin requiring moisturising, firming and wrinkle smoothing. Epidermal growth factor EGF –thanks to its natural ability to stimulate the synthesis of collagen, fibronectin and elastin– reduces wrinkles and increases skin elasticity, strengthens the structure of elastic fibres. Reduces the signs of aging - regenerates and smooths the epidermis, increases hydration, strengthens skin elasticity. The cream is enriched with the skin protective barrier regenerating, moisturising and antioxidant ingredients.

Contains a unique extract from young burdock roots with an exceptional ability to maintain the balance of resident flora on the skin (microbiota), with anti-bacterial and anti-inflammatory properties. Strengthens the cohesion and resistance of the epidermis to damage, reduces inflammatory reactions caused by pathogens, including Staphylococcus aureus bacteria. Leaves the skin feeling comfortable, smoothed and moisturised. High-molecular weight hyaluronic acid 1MDa creates a protective film, increases hydration reserves, reduces transepidermal water loss (TEWL). The formula is complemented by antioxidant ingredients - extracts of horse chestnut, emblica and licorice root and regenerating: allantoin, oily marigold macerate, rosehip oil, corn oil, avocado oil, vitamins A, E, H, B<sub>5</sub>, inositol.

CD1472 50 ml



# PLANT PLASMA

## TREATMENT SCHEME

1. **Make-up removal and toning of the facial skin** with milk and tonic from the SPECIAL AESTHETICS or REGENEVIA DNA lines. Make-up removal of the skin around the eyes with SPECIAL AESTHETICS remover.
2. **Perform a peeling tailored to the skin type:** face skin – LUMI-GEL SPECIAL AESTHETICS, eye area – LUMI-CREAM Peeling, or EPS BIOFERMENT PEELING REGENEVIA DNA
3. **Apply PDT SERUM:** EGF PLANT PLASMA or PLANT PLASMA TGF- $\beta$ 2  
Application:
  - PDT LASER LLLT/LED 650nm and 420nm
  - micro-needle method (face skin – a needle of up to 0.5mm; and under eyes – a needle of up to 0.3mm - rollers, micro-needles, dermapens)
  - manually.
4. Apply a finishing **day cream EGF PLANT PLASMA REPAIR LIFTING DAY CREAM SPF20 UVA/UVB**

- All-year-round treatment
- In a series 3 x every 10-14 days, repeat the series after 3 months or apply as an independent treatment
- do not use chemical peel products during the treatment

#### MAIN CONTRAINDICATIONS:

- skin diseases
- any birthmarks require pre-treatment evaluation
- cancer and autoimmune diseases
- pregnancy and breastfeeding
- acute infections, antibiotic and retinoid treatment

## TECHNOLOGY

- EGF and TGF- $\beta$  PLANT PLASMA treatment products are manufactured under special microbiological protection conditions to ensure maximum activity of plant growth factors.
- The active formula additionally contains an active ingredient EQUIBIOME™ - which maintains the balance of the resident flora and also acts against the multiplication of Staphylococcus aureus bacteria. The obtained results confirmed the effectiveness of the protective action against Staphylococcus aureus while maintaining a balanced layer of a bio-film for Staphylococcus epidermidis.
- The stimulating action of plant growth factors is enhanced thanks to the photodynamic PDT application method – treatment formulas contain original CHANTARELLE complexes of bio-chromophores that are photosensitive to LASER LLLT and LED light with a length of 650nm and 420nm. Tests of formulas containing bio-chromophores confirm a 3- to 11-fold (depending on the type of the procedure) increase in the effectiveness of the repair action in treatments using CHANTARELLE devices.
- Application of treatment products:
  - PDT LASER LLLT/LED R 650nm and UV 420nm or
  - micro-needle method (face skin – a needle of up to 0.5mm; and under eyes – a needle of up to 0.3mm - rollers, micro-needles, dermapens) or
  - manually

## ACTIVE INGREDIENTS

**EGF EPIDERMAL GROWTH FACTOR:** with intensive anti-ageing properties, revitalises the skin and improves skin appearance – reduces flabbiness and wrinkles, regenerates the epidermis, normalises moisture and pores. The improvement of skin parameters and appearance is the effect of the stimulation of the proliferation of keratinocytes, and thus of the increased collagen synthesis (young collagen +123% within 7 days of application), elastin (+45% within 7 days of application) and fibronectin. The effect is also an increase in the biosynthesis of hyaluronic acid in keratinocytes under exposure to EGF.

**TGF- $\beta$  TRANSFORMING BETA GROWTH FACTOR:** rejuvenates the skin affected by chronological ageing and ageing caused by external factors by promoting increased fibroblast divisions, increasing the level of expression of extracellular matrix proteins such as collagen, fibronectin and integrin, and simultaneously inhibiting matrix protein degradation by inhibiting extracellular matrix metalloproteinases.

**FILMEXEL®** biomimetic natural glycopolymers from Tara tree (Caesalpinia spinosa) and red algae (Kappaphycus alvarezii) with film-forming and protective properties to protect the skin against external factors (PM dusts, allergens, irritants). The dense, double helix network acts as a natural barrier protecting the skin without creating the effect of a mask. Leaves the skin feeling naturally lifted and smoothed; has anti-ageing properties. Even after the first application, radiant skin, reduced wrinkles and improved contours are visible.

**EQUIBIOME™** is a unique extract of young burdock roots (Great Burdock) obtained from aeroponic culture (without the use of solid soil or water as the growing medium), has exceptional properties of maintaining the balance of resident flora on the skin (microbiota), preventing bacteria and inflammation. In addition to local effects on skin problems such as dermatitis, acne and psoriasis, it strengthens the cohesion and resistance of the epidermis to damage, reduces inflammatory reactions caused by pathogens, including Staphylococcus aureus bacteria. Leaves the skin feeling comfortable, smoothed and moisturised.

**HYALURONIC ACID** - with different molecular weights from ultra-low molecular weight 5 kDa (ULMW) and medium molecular weight 50 kDa to high molecular weight 1 MDa, thanks to which it penetrates into various levels of the skin, moisturising it deeply and forming an occluding layer. It smooths out wrinkles, strengthens collagen and elastin fibres, improving skin elasticity and stretchiness. 1MDa macromolecular hyaluronic acid - forms a protective layer, increases moisture reserves, and reduces transepidermal water loss (TEWL). Protects the skin against dryness and adverse external factors. Leaves the skin feeling immediately properly stretched and elasticised.

**LICORICE EXTRACT** - the root extract of this plant has strong water-binding properties in the skin, therefore it is an effective moisturizing ingredient. It soothes irritations and inflammation of the skin, soothes the effects of UV radiation and has antioxidant, antibacterial and antifungal properties. It strengthens blood vessels, reduces puffiness under the eyes and skin redness, brightens the skin tone. It increases the regeneration capacity of skin cells, which is why it is also used in cosmetic preparations as an anti-wrinkle ingredient. It inhibits the activity of tyrosinase, an enzyme that contributes to the formation of discoloration.

**SAPONARIA EXTRACT** - natural saponins with a vitalizing effect, have a gentle cleansing and cleansing effect, which helps to fight excessive sebum production.

**EMBLICA EXTRACT** is obtained from Indian gooseberry. Due to its valuable properties, it is widely used in medicine, as it has antibacterial and antiviral properties. Raw material from India is used in cosmetics, mainly as a rejuvenating agent and removing skin discoloration. The extract has a beneficial effect on the skin: it brightens it and eliminates small skin spots. Due to the high content of vitamin C, it neutralizes free radicals and delays the aging process.

**OIL MARIGOLD MACERATE** - the use of marigold extract is very common due to its anti-inflammatory and antibacterial properties. These properties are enhanced by the action of sunflower oil containing vitamin E and linoleic acid. That is why calendula oil is used in cosmetics aimed at cleansing and antiseptic properties.

**AVOCADO EXTRACT** - has anti-ageing and antioxidant properties, stimulates collagen synthesis. It helps protect the skin against UV rays and free radicals. It improves the barrier function and moisturizes. Especially recommended for sensitive and irritated skin.

**AVOCADO OIL** - regenerating avocado oil with a very high content of triglycerides and natural vitamins A and E. Thanks to its soothing, moisturizing and softening properties as well as quick penetration without leaving a sticky film - it is effective in rejuvenating treatment and prevents skin irritation.

#### ALSO IN THE ACTIVE FORMULA:

**ALLANTOIN, SHEA BUTTER, CHESTNUT EXTRACT, WILD ROSE OIL, CORN OIL, VITAMINS A, E, H, B<sub>5</sub>, B<sub>6</sub>, UVA/UVB FILTERS.**

**Bio-chromophores** (R 650nm and UV 420nm) – innovative original CHANTARELLE bio-chromophores of plant origin, developed in CHANTARELLE laboratories, are dedicated to photodynamic treatments PDT LASER or LED: R 650nm – energisation and regeneration or UV 420nm – regeneration of irritated skin with symptoms of inflammatory changes.

