# Hylunia Scientific Ingredients

Cutting Edge Formulations
For Real Results



### Introduction

 Hylunia is the leader in the anti-aging skin care industry because we create the highest quality and most clinically effective skincare products available.

 Maximum concentrations of medical grade and scientifically proven ingredients.

 Real results from Anti-Oxidants, Peptides, Hyaluronic Acid, Alpha Hydroxy Acids, Retinol, Vitamin C and other advanced ingredients based on the latest science and technology.



### **Anti-Oxidants**

- Have the ability to fight "free radicals" -- unstable compounds that attack human cells and damage DNA.
- Damaged skin cells can lead to accelerated aging in the form of wrinkles, dry skin, dark circles under eyes, dull skin, and more.
- Free radicals are in the air we breathe, the foods we eat, sunlight, and pollution -- basically, just about everywhere.
- Applied on the skin they can seep underneath to strengthen skin cells and keep them healthy.



#### **Vitamin C**

- •As you age, your body slows down its production of collagen and elastin, which keeps skin strong, flexible, and resilient.
- Evidence shows that the antioxidants found in vitamin C may stimulates the production of collagen and minimize fine lines, wrinkles, and scars





#### **Vitamin A**

- •The most prescribed anti-aging treatment by physicians because of its proven anti-aging results in the skin correcting wrinkles and improving elasticity.
- •It tells skin to act like a healthy, younger skin cell.
- In addition to improving discoloration and wrinkles from sun damage, it's also been shown to be a heavy-hitter against acne.





### Alpha-hydroxy Acids (AHAs)

- Natural-based acids including glycolic, lactic, citric, malic and tartaric acids.
- •Glycolic acid was the original AHA and remains popular for its ability to remove dead skin cells and leave skin smoother, softer, and more radiant.
- AHAs are used to exfoliate the skin, reducing fine lines, age spots, acne scars, and irregular pigmentation





# Hyaluronic Acid (Hyaluronic Complex Solution)

- Its function in the body is, amongst other things, to bind water to the skin and aid in tissue repair.
- •It is one of the most hydrophilic (water-loving) molecules in nature with numerous benefits for the human body. In fact, it can accurately be described as "nature's moisturizer".
- Clinical studies have shown that radiated wounds heal quicker with Hyaluronic Acid.
- •Holding 1000 times its weight in water, Hyaluronic Acid effectively binds water to cells, and is responsible for the elasticity and resilience of the skin





#### Calendula

- A traditional antiseptic and antibacterial.
- Calendula extract is rich in betacarotene, stearin, triterpinoids, flavonoids and coumarin, as well as microelements.
   For this reason, Calendula is frequently used in soothing and calming preparations.
- It is usually used externally for it's antiseptic and healing properties in treating skin infections, cuts, punctures, scrapes, burns and chapped or chafed skin or lips.





#### **Alteromonas Macleodii**

- A rare ocean organism that is raring to correct inflammation caused by acne, rosacea, psoriasis and other skin conditions.
- This rare ocean organism is retrieved from the depth of 1.5 miles below the volcanic oceans and fermented to produce an exopolysaccharide extract, which resembles a sugar molecule.
- Hylunia incorporates the highest concentration of this fermented extract to reduce inflammation.





## Centipeda Cunninghamii Extract

- •An indigenous Australian plant that's good for treating just about anything including itchy or dry skin.
- Has the ability to minimize inflammation by 4,000 times compared to methyl salicylate (Aspirin) and promotes cell regeneration, and minimizes the appearance of fine lines and wrinkles.
- This extract is an effective antiinflammatory, anti-allergenic, sunscreen and cell renewal properties.





#### **Green Tea Extract**

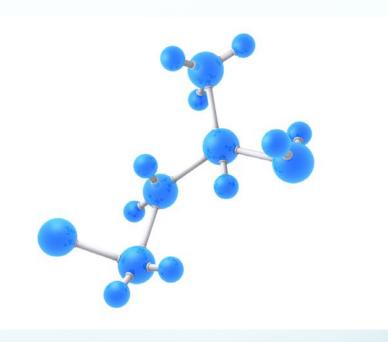
- •Like antioxidants, the polyphenols found in tea also have been shown to fight free radicals.
- •Green Tea contains a natural plant nutrient called EGCG. EGCG is a versatile substance that restores, protects and heals skin.
- Has skin cell repair qualities that help to restore collagen, the "building block" of skin.
- •Green tea is an incredible antioxidant and anti-inflammatory.





#### **Superoxide Dismutase (SOD)**

- This endogenous antioxidant makes naturally to defend itself against harmful Free Radicals.
- an enzyme that repairs and reduces the damage done to cells.
- •Studies have shown that SOD is both an antioxidant and antiinflammatory in the body, neutralizing the Free Radicals that lead to aging and wrinkles and pre-cancerous cell.





### Grape Seed Extract/Pycnogenol

- •Contains chemical constituents such as proanthocyanidins, polyphenols, flavonoids, and anthocyanins, all of which are very potent antioxidants that help for diminish the sun's damaging effects and reduce free-radical damage.
- It has also been shown to have wound-healing properties.
- •Grape Seed Extract to a cultured human skin equivalent showed evidence of younger skin, including enhanced synthesis of healthy collagen and elastin.





#### **Vitamin E**

- •Is considered an anti-oxidant superstar. It is one of the most well-known and researched anti-oxidants.
- •Protects the epidermis from early stages of ultraviolet light damage and increase the efficacy of active sunscreen ingredients.
- Reducing the formation of free radicals upon skin exposure to UVA rays and other sources of skin stress.





#### **Turmeric**

- •Turmeric is well known for its anti-aging, anti-inflammatory, anti-oxidant and anti-bacterial properties.
- •This bio-protectant neutralizes free radicals and ultra violet radiation (UV) damage.





#### Beta Glucan

- •This has proven abilities to reactivate the Langerhans cells, making it an excellent ingredient for fighting off the signs of aging.
- Beta Glucan enters the skin through the cellular lipid matrix, meaning it can reach lower levels of the skin.
- •This ingredient also stimulates collagen, helping to speed up wound healing and diminish lines and wrinkles.





### <u>Pumpkin Seed Peptide – Cucurbitine (patented)</u>

- Pumpkin seed extract has antiinflammatory, anti-oxidant and analgesic properties and is nature's answer to protect your skin from the sun's UV rays and skin inflammation.
- •Minimizes the inflammatory process that contributes to the aging of the skin.
- It also lowers the skin's stress levels that can be responsible for causing skin irritation and various skin conditions.





#### **Horsetail Extract**

- •Horsetail is high in vegetal silica and boosts and rejuvenates the connective tissue and regenerating skin cells.
- •The high silica content also has a softening and smoothing effect on the skin and is assists a healthy skin composition.
- Packed with magnesium and silica, horsetail extract builds collagen in the skin, resulting in a younger, smoother complexion.
- •Its astringent properties also make it a key skin care ingredient for acnefighting products.





#### **Chrysanthemum**

- Chrysanthemum has been used for centuries to treat inflammation.
- Provides skin with the most powerful antioxidants to protect against DNA alteration from sun exposure and free radicals.
- Chrysanthemum has some anesthetizing, anti-bacterial, anticancer, anti-fungal, anti-oxidant, and anti-inflammatory activity.





#### Padina Pavonica

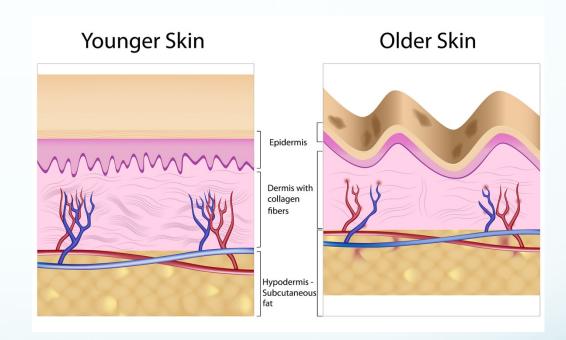
- •A fan shaped brown algae hand picked daily by scuba divers from the temperate waters of Malta and is a clinically proven collagen boosting seaweed
- •The purified extract of this intelligent algae, not only helps the skin's metabolism, but it stimulates the synthesis of Glycosaminoglucan molecules (GAGs) at the cellular level.
- •These hydrophilic (water attracting) molecules are responsible for the moisturizing, and thus for the firmness and elasticity, of your skin.
- •Independent clinical trials proved that it helps reduce wrinkles by up to 19% in just 15 days.





#### Plant Peptides

- Super-hero molecules that promote skin rejuvenation and save your skin from premature aging.
- Provides skin renewal and protein synthesis for a younger looking skin.
- Hylunia uses the following peptides in particular for quick and effective results -
  - •Zinc peptide firms and rejuvenates skin and promotes wound healing.
  - •Copper peptide promotes wound healing and firms and rejuvenates the skin.
  - •<u>Manganese</u> protects against oxidative stress.
  - •<u>Selenium peptide</u> is an antiaging ingredient that protects against lipid peroxidation and boosts SPF.
  - •<u>Silicon peptide</u> is important for maintaining skin tightness.





#### **Patented Peptides**

#### Hydrolyzed soy and rice peptides and oxidoreductase

This peptide complex inhibits elastase and collagenase breakdown of connective tissue in the eye area and improves hemodynamic properties. In Vitro tests have shown it significantly reduces the rate of blood clotting therefore minimizing dark circles as well as neutralizes free radicals and minimizes the inflammatory process resulting in reduced puffiness.

#### •N-Hydroxysuccinimide-Chrysin-Palmitoyl Oligopeptide-Palmitoyl Tetrapeptide-7

This flavonoid Chrysin in this peptide stimulates the enzyme UGTA to clear the biliruban and the N-Hydroxysuccinimide makes the iron soluble to prevent the accumulation of hemoglobin(iron) and biliubin, thereby minimizes dark circles. The peptides matrikines Pal-GHK and Pal-GQPR provides firmness and tone to the eye area.

#### Diacetyl Boldine

This peptide inhibits the activity of tyrosinase enzyme, which is responsible for melanin pigment formation and works via alpha andrenergic antagonist receptors to decrease melanin quantity by 70%. This is 30 times more active than Kojic acid.



#### Palmitoyl Tripeptide-5

This plant derived peptide stimulates the production of collagen and helps to reduce wrinkles and fine lines. Palmitoyl Tripeptide-5 activates the dormant tissue growth factor (TGP-B) which is one of the key factors in collagensynthesis.

#### Palmitoyl Tetrapeptide-7, Dipeptide-2 and Hisperidin Methylchalcone

This peptide complex minimizes eye puffiness and fluid retention under the eye. The Lipopeptide (Palmitoyl Tetrapeptide-7) decreases inflammation and improves firming and elasticity. Dipeptide-2 improves lymphatic circulation and Hesperidin Methylchalcone decreases blood capillary permeability.

#### Hydroxyproline

Hydroxyproline is not only important in collagen synthesis but it also inhibits the enzymes responsible for the degradation of collagen and elastin. Our skin naturally contains proteolytic enzymes Metalloproteinase (MMP2) and Tissue Inhibitors Metalloproteinase (TIMP). Metalloproteinase (MMP2) is responsible for the break down of collagen and elastin. Tissue Inhibitors Metalloproteinase (TIMP) is responsible for stopping MMP2 from degrading collagen and elastin. As we age, MMP2 begins to increase and the production of TIMP decreases. This leads to an imbalance and the reduction of collagen and elastin. Hydroxyproline stimulates TIMP to help reduce the degradation of collagen and elastin thereby reducing wrinkles.

Eastern Wisdom Western Science

#### Palmitoyl Oligopeptide-Palmitoyl Tetrapeptide-3 (Matrixyl3000- Patented)

This peptide contains matrikines (Pal-GHK and Pal-GQPR) which act as messengers and activate certain genes to renew and repair the skin. They activate the neosynthesis of extracellular matrix macromolecule to minimize wrinkles and fine lines, improve elasticity and tone and face lift effect.

#### Methyl Gentisate (from Gentian plant)

This inhibit the enzyme tyrosinase activity thereby reducing melanin formation.

#### Arbutin

Derived from Uva Ursi (Bear berry plant) slows down the tyrasinase enzyme that causes pigmentation. It is also has anti-inflammatory and anti-bacterial properties.

