

SPIDER Polypeptide + PN

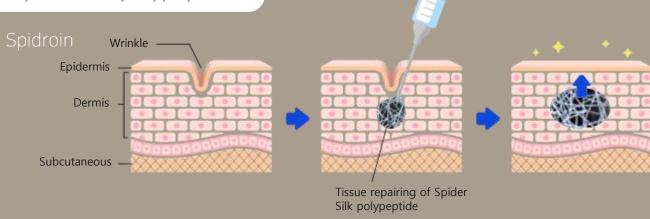
# SPIDER AQUA

#### The Main Ingredients of Spider Aqua Eye Booster



Wound healing

#### 1. Spider silk polypeptide



#### 2. Polynucleotide (PN)

obtained by the method of purifying the DNA of the salmon fish. Regenerates cells and damaged tissues, homeostasis from the inside. Stimulates the active synthesis of collagen which helps to restore the DNA chains and to recover damaged skin especially around eyes.

#### 3. Hyaluronic Acid

Hydration



### Spider Silk

Spider webs have intrigued humans for thousands of years.

The main components of spider silk are 17 types of amino acids.

In particular, glycine, which has strong binding force, accounts for 38.4%. Does not cause allergic reactions.



#### Spider Silk story

Spider Silk, with its excellent tensile strength & elasticity, and biocompatibility & biodegradability is the main component of Spider Aqua Eye Booster.

This leads to effective moisturizing and drug deliverance that can be applicable to biomaterials, cosmetics and pharmaceutical area of interest.

We have discovered that spider silk proteins can be fused to biologically active proteins and be converted into a **gel type** at body temperature.

- The well-known dragline silk is mainly composed of two fibrous proteins MaSp1 and MaSp2, which are secreted from the major ampullate silk gland

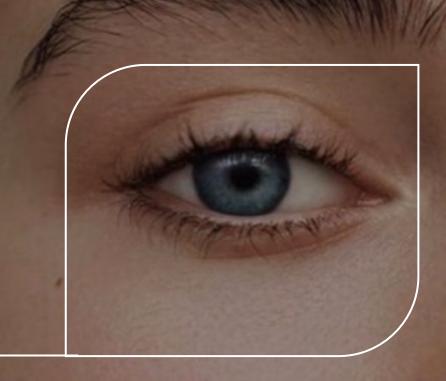


 $0.9-1.4_{GPa}$ 

Tensile strength of Spider silk

25-40%

Extensibility of Spider silk



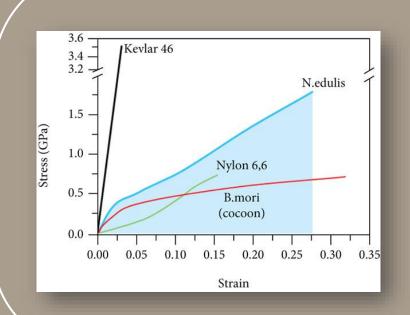
Natural spider silk, especially the major ampullate silk, has impressive comprehensive mechanical properties, including high tensile strength (0.9~1.4 GPa) and excellent extensibility (25%~40%)

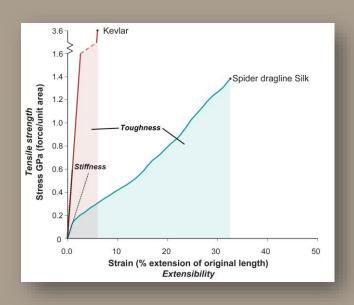
#### Spider Silk Advantages

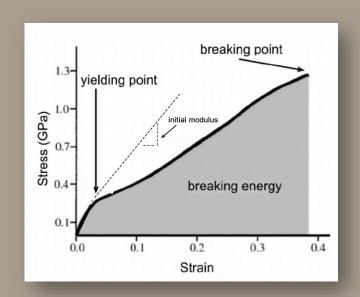
- Biocompatible
- Safe and mild for around Eye treatment
- Fast and sustainable result



#### Tensile stress & High Extensibility of Spider Silk







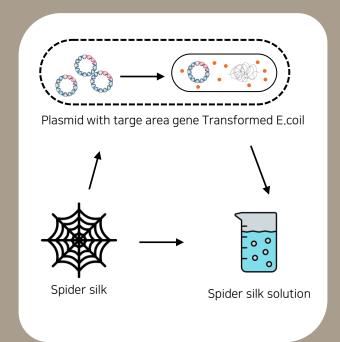
Tensile strength and Rigidity of Spider silk

Omenetto, F.G.; Kaplan, D. L. (2010).New Opportunities for an Ancient Material. Science, 329(5991), 528-5313 doi:10.1126/science.1188936



#### Tensile stress & High Extensibility of Spider Silk

#### **Spidroin Preparation**



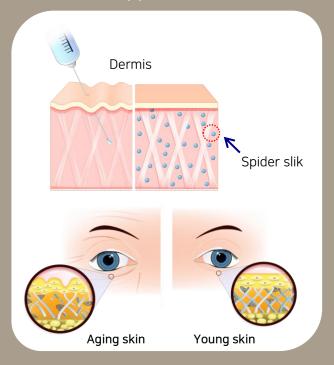
#### **Processing Method**

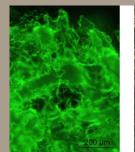


#### Morphology



#### Application







Scientists develop gel made from spider silk proteins for biomedical applications

The hydrogels stained with a fluorescent dye that binds to amyloid structures and the corresponding brightfield image. *Microscope photo: Tina Arndt.* 



#### Protocol



#### Step 01

Cleanse well in lukewarm water.



#### Step 02

Apply lidocaine cream to the target area and leave about 30 min.



#### Step 03

Cleanse cream with alcohol cotton.



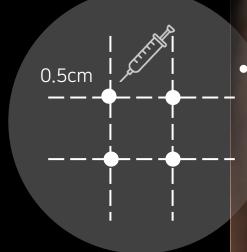
#### Step 04

Apply 0.03 to 0.05 cc each point evenly to the skin.



#### Step 05

Carefully cleanse skin with alcohol cotton.



# 3 sessions at 4-week intervals Injection Volume: 0.03~0.05cc / point Injection dept: Dermis Layer (1 to 1.8 mm)

Escape the eyebrow part. It can shed blood

Do not mix with other product

\*Tips

#### Before & After case





### THANK YOU

