

#### **PDRN Serum**

The philosophy behind Miskonceptions, with its focus on safety, efficacy, and innovation, is clearly reflected in the development of the **Pro-Regen Complex**<sup>®</sup>. This unique regenerative complex aligns with our commitment to enhancing natural skin cell regeneration and overall skin wellness.

#### **Technical information**

### Pro-Regen Complex®: A Unique Regenerative Solution

**Pro-Regen Complex®** is a sophisticated blend of carefully selected ingredients, combining the powerful regenerative properties of **PDRN**, sourced from sturgeon, with other scientifically backed activities.

This complex aims to create an environment in the skin that supports and accelerates its natural repair processes, leading to healthier, more youthful-looking skin.

## Key Aspects of the Pro-Regen Complex® Philosophy:

- **Safety First:** By prioritising the safest ingredients, Miskonceptions ensures that its products are suitable for a wide range of skin types, including sensitive skin. This commitment to safety not only builds trust with consumers but also sets a high standard in the skincare industry.
- **Efficacy Driven:** The inclusion of potent regenerative ingredients like PDRN demonstrates our dedication to creating products that deliver visible results. The efficacy of Pro-Regen Complex® is supported by clinical studies and consumer feedback, showcasing its ability to enhance skin regeneration and wellness.
- Innovative Formulation: Pro-Regen Complex® represents the cutting edge of skincare innovation. By combining PDRN with other synergistic ingredients, this complex targets multiple signs of aging and skin damage, offering a comprehensive solution that goes beyond ordinary skincare.
- Holistic Skin Wellness: Beyond just improving the appearance of the skin, Pro-Regen Complex® contributes to overall skin health. This holistic approach resonates with consumers who are increasingly looking for products that support long-term skin wellness, not just immediate cosmetic results.



#### Understanding PDRN in Skincare

PDRN is recognised for its regenerative properties, particularly its ability to enhance cell repair and regeneration, promote fibroblast and collagen production, and improve skin elasticity.

Traditionally, PDRN has been utilised in medical treatments, especially through injections, where its efficacy is well-documented. However, its application in topical skincare products is a newer frontier, and exploration into this area, particularly with a focus on sturgeon-derived PDRN, is innovative.

#### Why Sturgeon?

Sturgeon is an ancient species, often referred to as a "living fossil," and its longevity and resilience are indeed remarkable. The hypothesis that the DNA of sturgeon contributes to these qualities—and that these benefits can be harnessed in skincare—is intriguing. The diet of sturgeon, being natural and organic, further enhances the appeal of this source, aligning with the growing consumer demand for sustainability and clean beauty products. Sturgeon PDRN cream was tested and used successfully in Russia for treating skin damage caused by the Chernobyl disaster.

#### PDRN (molecular weight of 250kDa up to 500kDa)

PDRN is a biologically active, biotechnological, functional ingredient made of purified poly deoxyribonucleotides. Extremely efficient in preventing wrinkle formation and increasing skin elasticity. This ingredient increases fibroblast and keratinocyte proliferation.(1) It exerts anti-pollution, skin detoxifying actions and also prevents skin DNA damage (related to excessive UV exposure), acting as an anti-photoaging specialty (2) Sodium DNA's double helix deposition on the epidermis promotes a unique tensor effect, with immediate perception of skin lifting and wrinkle appearance reduction.

#### PDRN MoA

Sodium DNA interacts, with high affinity with, multiple nucleotide targets (TLR-9 receptors on the epidermis, fibroblasts A2A receptor when its nucleotides are internalized), promoting ubiquitous regeneration of unbalanced epidermis and dermis components.

#### Effects on skin:

Immediate and long-term fine lines improvement and lifting effect
Regeneration of dermis framework
Increased fibroblasts and stem cells proliferation
Skin re-plumping and increase in thickness
Enhanced elasticity
Increase in collagen production
Stretch marks and scars treatment
UV damage repair
Anti-pollution
Skin and mucosa Re-epithelization
Ubiquitous soothing and anti-inflammatory action through immune system modulatory activity

#### Results in vivo

Elasticity increase of 26%Cutaneous thickness increase of 99%Increase of the moisturizer on of 99%Reduction of skin roughness of 99%

### Biomimetic peptides

Matrikines are messenger peptides capable of regulating cell activities by interacting with their specific receptors. They activate certain genes involved in the process of extracellular matrix renewal and cell proliferation. These mechanisms weaken with age. (3) SYN-TC Helps support collagen quality and maintenance. It helps the skin look younger, plumper and firmer.

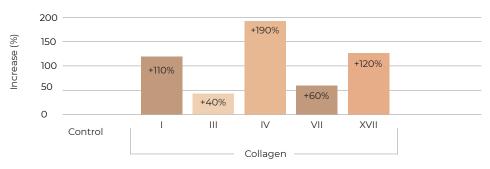
#### Biomimetic peptides MoA

Those peptides are released from the extracellular matrix (EMC) when macromolecules are partially broken down. They are cell-signalling fragments that regulate cell activity and have biological functions that control cellular functions. They play a role in skin rejuvenation. Matrix derived peptides may penetrate skin via multiple pathways to act on cutaneous cells. At the cellular level, the mechanism of action of some elastin derived peptides are well known (4)

#### Effects on skin(5-6):

- Antiaging
- Improve hydration
- · Hyperpigmentation
- Improve skin density
- · Repair skin barrier
- Reduce irritation

Stimulation of Skin Collagens



Results: SYN-TC leads to a significant up-regulation of dermal collagens and DEJ collagens.

# Hyaluronic Acid 3 different molecular weights (from 3kDa to 3000MDa)

The use of three different molecular weights of Hyaluronic Acid (HA) in Miskonceptions Serum is designed to optimize hydration by targeting different layers of the skin

#### HA MoA:

Low Molecular Weight HA - this type of HA has the smallest molecules, allowing it to penetrate deeply into the skin's layers. It provides hydration at the deepest level, helping to plump the skin from within and support long-term moisture retention.

Medium Molecular Weight HA- with slightly larger molecules, this form of HA penetrates the middle layers of the skin. It provides hydration just beneath the surface, helping to maintain elasticity and smoothness.

High Molecular Weight HA - this type of HA has the largest molecules, which sit on the surface of the skin. It creates a protective, hydrating barrier that locks in moisture and gives the skin an immediate plumping and smoothing effect.

This multi-layered approach ensures that Miskonceptions Serum can add comprehensive hydration, addressing both short-term moisture needs and long-term hydration goals.

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#### Effects on skin:

- · Hydration from the deepest layers to the surface
- · Attract moisture
- Plump
- Youthful appearance
- · Tissue repair
- · Hydrate oily and acne prone skin
- Anti UVA
- Reduce free radicals
- · Tissue repair
- · Stimulate collagen

### Other active ingredients in Miskonceptions Serum:

Miskonceptions PDRN Serum leverages the high concentration of aloe vera to enhance skin health in several key ways:

Improving Skin Integrity: Aloe vera is rich in vitamins, enzymes, and antioxidants, which contribute to the maintenance and repair of the skin barrier. This helps in strengthening the skin's structure, making it more resilient to environmental stressors and potential damage.

Enhancing Wound Healing, Aloe vera is well-known for its anti-inflammatory and soothing properties. It promotes faster wound healing by stimulating fibroblast activity, which aids in the production of collagen and elastin—essential components for skin repair and regeneration.

Maintaining Skin Hydration Aloe vera has natural hydrating properties due to its high water content and ability to bind moisture to the skin. It helps to keep the skin hydrated, soft, and supple by forming a protective barrier that reduces water loss. (8)

By combining PDRN (Polydeoxyribonucleotide), known for its regenerative properties, with aloe vera, the Miskonceptions Serum offers a powerful formula designed to support skin healing, hydration, and overall skin health.

#### **Jasmine Extract**

Rich in antioxidants that help neutralize free radicals, protecting the skin from oxidative stress and preventing premature aging.

It has anti-aging properties that help in reducing the appearance of fine lines and wrinkles, promoting a more youthful complexion.

Jasmine extract also has antibacterial properties, which can help in preventing acne and other skin infections.



#### Magnolia Extract

It is known for its strong anti-inflammatory properties, making it effective in soothing irritated or inflamed skin.

Like jasmine, magnolia leaf extract is rich in antioxidants, which protect the skin from environmental damage and slow down the aging process.(9)

#### Caffeine

It offers some protection against UV damage by absorbing UV rays and reducing the impact of UVB-induced skin damage.

Caffeine can help mitigate the formation of wrinkles caused by UVB exposure, helping to maintain smoother skin.

It also helps in reducing the visible signs of photoaging, such as pigmentation and fine lines, by protecting the skin from UV-induced damage. (10 -11)

#### **Panthenol**

It helps to maintain the skin's moisture barrier, reducing water loss and keeping the skin hydrated.

Known for its moisturizing and soothing properties, panthenol helps calm irritated skin, making it softer and suppler.

These ingredients, when combined, create a powerful skincare formula that targets multiple skin concerns, including aging, inflammation, hydration, and protection from environmental damage.

### Miskonceptions PDRN Serum indications:

· Mild rosacea · Dull skin

· Acne scarring · Mild acne

Scars
 Crows feet

Aged skin
 Saggy skin

Age spots
 Anti UVA and UVB damage

The product is also designed to be an effective post-procedure treatment, providing soothing and regenerative benefits to the skin.

Post-Procedure Soothing and Regeneration

After aesthetic procedures, the skin can be sensitive, inflamed, and in need of repair. This product, with its blend of soothing ingredients like aloe vera and panthenol, helps to calm irritated skin, reduce redness, and support the skin's natural healing process.

Additionally, when used in combination with Polynucleotides injectables, this product helps to extend the results of the treatment and reduce downtime. The synergy between the ingredients enhances skin regeneration, maintaining the rejuvenating effects for a longer period and ensuring a smoother recovery process.

