



# PDRN

A NEW APPROACH IN  
**REGENERATIVE MEDICINE**

THERAPEUTIC SYNERGY WITH HYALURONIC ACID



 skymedic

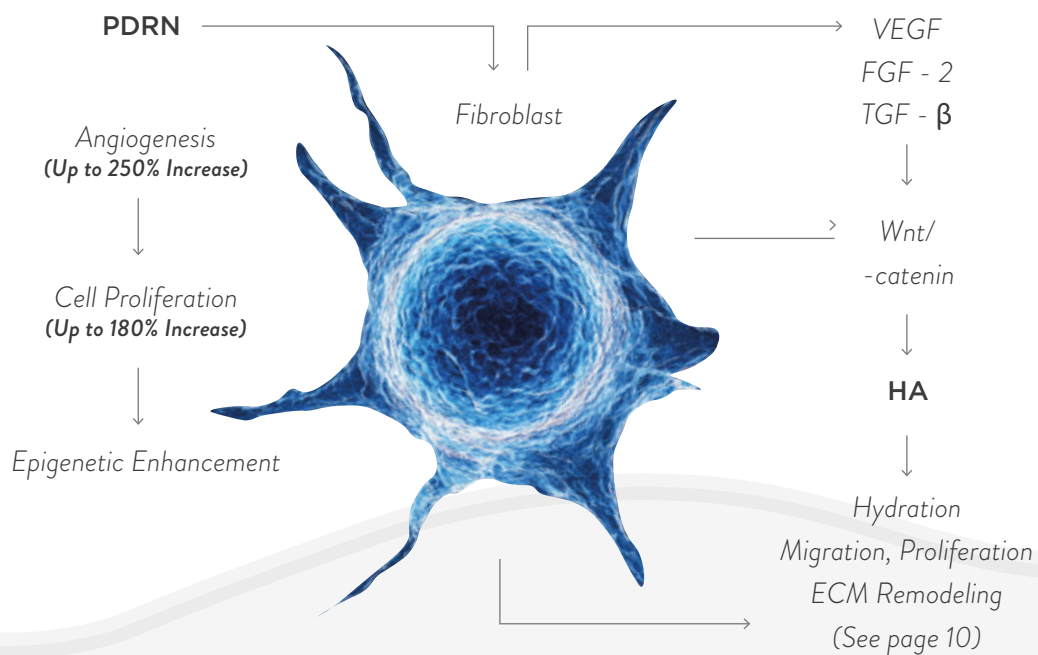
# PDRN: MOLECULAR TECHNOLOGY FOR **CELLULAR REGENERATION**

PDRN (**polydeoxyribonucleotide**) is a salmon-derived DNA fragment that acts as a key bioactive agent in regenerative medicine. Its efficacy is clinically proven in stimulating cell regeneration, repairing damaged DNA, activating fibroblasts, and modulating the immune system.

## MECHANISMS OF ACTION

- Provision of nucleotides for the repair of DNA damaged by ROS, UV, or other damaging agents.
- Stimulation of fibroblasts to restore the extracellular matrix and reactivate type I collagen synthesis.
- Neutralization of reactive oxygen species (**ROS**) and modulation of pro-inflammatory cytokines (**TNF- $\alpha$** , **IL-1 $\beta$** ).

## MOLECULAR SYNERGY OF PDRN + NIACINAMIDE + AH



**IMMUNOLOGICAL INFLAMMATION  
AND CHRONIC INFLAMMATION**

DERMAL MATRIX



# meso ox.



## SKIN BOOSTER REGENERATION

PDRN + NIACINAMIDE + MRNA

A comprehensive mesoceleutical that combines PDRN and niacinamide to restore skin health and vitality. Its formula boosts cell regeneration, stimulates collagen and elastin synthesis, and promotes deep and lasting hydration. It also helps smooth fine lines, soothe irritations, even out skin tone and texture, and strengthen the skin barrier function.



### COMPOSITION

Adenosine triphosphate, hyaluronic acid, propanediol, panthenol, riboflavin, niacinamide.



### CHARACTERISTICS

5 x 5 ml (PDRN + Niacinamide + mRNA)  
5 x 5 ml (HA Solution)



### USE

0.1 - 0.2 ml per 1 - 1.5 cm (Max. 1.5 - 2 ml per session).  
1 per week (3 sessions).



### COMBINATION

Laser / Carboxytherapy / Radiofrequency /  
Photobiomodulation Therapy (Fotoage and Skinox)

#### ● Periocular area

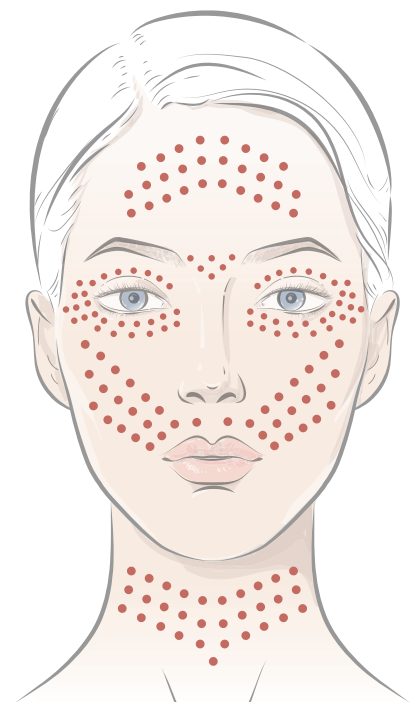
Apply topically (drug delivery) after microneedling or laser treatment. 1-2 ml per session.

3 to 5 sessions every 2 to 3 weeks.

#### ● Face and neck

Apply topically (drug delivery) after microneedling or laser treatment. 2 ml per area.

3 to 5 sessions every 2 to 3 weeks.



# PDRN

## COMBINATION HOMECARE PRODUCT

NIACINAMIDE + HA + PEPTIDES + CHP-9 + NAD+

These ampoules have been formulated as an ideal adjunct treatment for home care and as an essential complement to professional biostimulation and mesotherapy protocols. Their advanced composition combines PDRN (Sodium DNA) with Niacinamide, Hyaluronic Acid Crosspolymer, and a complex of biomimetic peptides such as Copper Tripeptide-1 and CycloHexapeptide-9.



### COMPOSITION

Niacinamide, Hyaluronic Acid, Peptides, CHP-9, NAD+



### CHARACTERISTICS

3 ml per tube



### USE

Break the cap and apply 1.5 ml to the face, preferably in the morning or evening, after cleansing.



### POST-TREATMENT

Post-Treatment Use

*Improves skin quality and maintains cellular homeostasis*

*Prolongs the clinical effects of in-salon treatments*

*Provides firmness and elasticity by stimulating fibroblasts*

## Protocols

### Periocular area, face, and neck

*Apply topically (Drug Delivery) 1.5 ml morning and night.*

*Maintain consistent use for 90 days. Each box is designed for approximately 60 days of use.*

# EVOLUTION OF REGENERATIVE MEDICINE

## PRIMITIVE ERA 1950-1960

**Bovine Collagen:** First attempts at dermal fillers.

**Limitations:** allergic reactions, limited duration (2-3 months), unpredictable results.



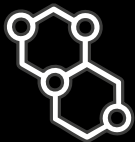
## HA REVOLUTION 1980-1990

**Hyaluronic Acid:** Discovery of biocompatibility. Initial application in ophthalmology, later expansion into aesthetic medicine.

**Duration:** 6-12 months.

## BIOLOGICAL ERA 2000-2010

**PRP and Growth Factors:** Introduction of autologous regenerative medicine. Discovery of mesenchymal stem cells in adipose tissue.



## MOLECULAR MEDICINE 2010-2020

**PDRN, Polynucleotides, and Niacinamide:** Specific activation of adenosine A2A receptors. Direct stimulation of angiogenesis and cell proliferation. 60% reduction in healing time.

Niacinamide is introduced as a precursor to CHP-9 and an epigenetic modulator, strengthening the skin barrier, reducing inflammation, and enhancing mitochondrial regeneration.

## PRECISION ERA 2020-2025

**Integrated CHP-9:** Specific cellular instructions combined with metabolic potentiation.

**Results:** 300% greater collagen synthesis vs. conventional treatments.



# MOLECULAR WEIGHTS HA METABOLIC CHARACTERISTICS

Parameter	HIGH MOLECULAR WEIGHT (1,500-2,000 kDa)	LOW MOLECULAR WEIGHT (200-500 kDa)
Tissue Penetration	Epidermis + Superficial dermis (0-0.5mm)	Medium-deep dermis (0.5-2mm)
Cellular Receptors	CD44 → Hydration/protection pathway	CD44 + RHAMM → Proliferation pathway
Degradation Kinetics	Slow hyaluronidase: 8-12 months	Rapid Hyaluronidase: 4-6 months
Viscosity	High (25,000-30,000 cP)	Medium (5,000-10,000 cP)
Hydration Capacity	1g retains 6L of water (maximum)	1g retains 4L of water (optimized)
Collagen Stimulation	↑ 150% collagen I synthesis	↑ 280% collagen I, III, IV synthesis
Angiogenesis	Moderate (vascular maintenance)	Intense (neovascularization)

## DIFFERENTIAL SCIENTIFIC FOUNDATION



**High MW:** Support matrix + sustained hydration

**Low MW:** Cell signaling + active remodeling

**Combination:** Biphasic effect = immediate results + deep regeneration

85%

Improves hydration  
(High MW)

280%

↑ Collagen  
(Low MW)

12

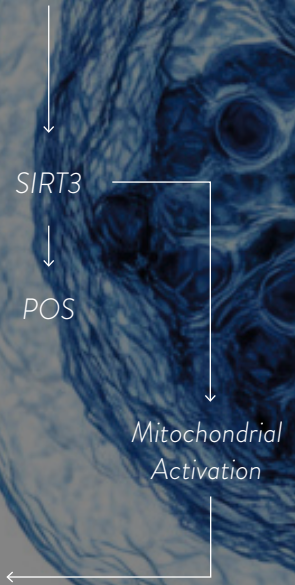
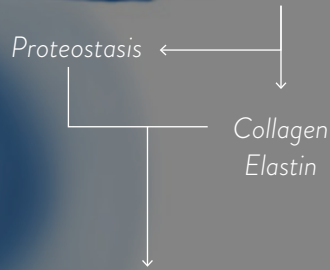
Lasts in months  
(High MW)

95%

Patient  
Satisfaction

# MOLECULAR SYNERGY OF **BIOINTELLIGENT ASSETS**

PDRN + NIACINAMIDE + CHP-9



▲ ATP  
▼ ROS

# TREATMENT AREAS

- Rejuvenates skin from within
- Deep and lasting hydration

Face



Hands



Abdomen



Neckline



Arms



Buttocks



Thighs



Neck



# DUAL COMBINED PROTOCOL

- **Duración total:** 6 months
- **Sessions:** 6 total
- **Maintenance:** Personalized



## PHASE 1:

MEXO OX PDRN

**Sessions:** 1st, 2nd (every 15 days), 3rd, 4th (every 4 weeks)

**Objective:** Hydration and refinement

**Technique:** Medium intradermal (1-2mm)

**Pattern:** Fan technique, 0.5cm dots

**Volume:** 1-2ml per area

**Needle:** 29G x 4mm

**Expected effects:**

- Sustained hydration
- Lifting effect
- Radiance

## INTENSIVE FACIAL ANTI-AGING PROTOCOL

**Indication:** Skin aging stages II-III

**Induction (3 months):**

- **Weeks 1, 5, 9:** REGENERA DEEP (biostimulation)
- **Weeks 3, 7, 11:** REGENERA MAX (hydration)

**Maintenance:** REGENERA MAX every 2 months

**Expected results:** 70% wrinkle reduction, 85% firmness improvement

## BODY PROTOCOL (NECK, NECKLINE, HANDS)

**Indication:** Skin aging on the body

**Structural base:** 3 REGENERA DEEP sessions (every 4 weeks)

**Refinement:** 3 REGENERA MAX sessions (every 4 weeks)

**Special technique:** 25G microcannula for large areas

## SPECIALIZED SCAR/STRETCH MARK PROTOCOL

**Indication:** Atrophic scars, striae alba/rubra

**Reconstructive Phase (4 months):**

- 4 REGENERA DEEP sessions (every 3 weeks)
- **Technique:** Subcision + deep infiltration

**Refinement Phase (2 months):**

- 2 REGENERA MAX sessions (every 4 weeks)

**Expected Results:** 60% improvement in texture, 45% reduction in depth



## PHASE 2:

PDRN HOME CARE

Apply topically (Drug Delivery) 1.5 ml morning and night.

Continue use for 90 days.

Each box is designed for approximately 60 days of use.

# EXPECTED RESULTS

- From the first session: brighter, smoother skin.
- After 3 weeks: improved elasticity, hydration, and texture.
- Long-term: deep repair and visible rejuvenation.

## OBJECTIVE: CORRECT MULTILEVEL DYSFUNCTION

Damage Level	Target	Therapeutic actives
Molecular	Oxidative stress, inflammation	CHP-9, Niacinamide
Cellular	Senescence, dysfunction	PDRN, CHP-9
Epigenetic	Gene silencing	Niacinamide
Structural	ECM, dehydration	Hyaluronic acid, PDRN
Immunological	SASP, inflammation	NAD <sup>+</sup> , PDRN

## DIFFERENTIATORS



### PURE AND SAFE FORMULA

Free of preservatives and additives. Sterile and biocompatible.



### VISIBLE EFFECTIVENESS

Clinical results from the first session in texture, firmness, and hydration.



### MAXIMUM QUALITY WITH EVERY APPLICATION

High-purity composition for effective and safe results.



### THERAPEUTIC VERSATILITY

Compatible with microneedling, infiltration, virtual mesotherapy, and more.



# PDRN

Isaac Peral, 91  
08224 Terrassa, Barcelona  
+34 937 426 424  
info@skymedic.es

*www.skymedic.eu*  
@skymedicoficial