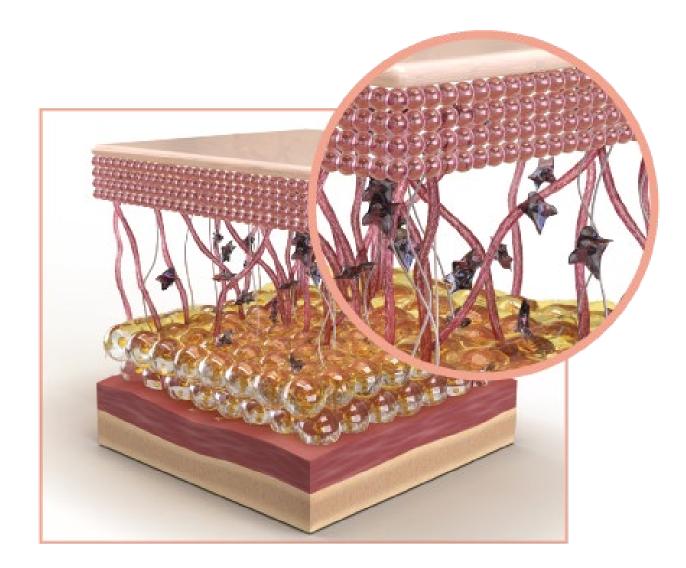
# VAMP<sup>™</sup> Clinical Presentation

VAMP

VAMP

## What is VAMP<sup>™</sup>





VAMP<sup>™</sup> is a topical, sterile bio-revitalizing solution enriched with a powerful blend of Vitamins, Amino acids, Minerals and Polydeoxyribonucleotides (PDRN) for skin rejuvenation and revitalization.

It helps to improve skin tonicity, tighten pores and smooth wrinkles. Overall, restoring skin's glow, hydration and improving skin texture.

# $\textbf{Composition of VAMP}^{\text{TM}}$



• 11 Vitamins

• 6 Minerals

I-Isoleucine

L-Methionine

I -Threonine

Glycine

L-Proline

L-Alanine

L-Serine

L-Cystine

L-Phenylalanine

L-Lysine hydrochloride

I-Histidine free base

L-Arginine free base

L-Asparagine-H2O

L-Aspartic acid

L-Glutamic acid

Hydroxyl-L-proline

L-Glutamine

L-Tyrosine

Taurine Ornithine

I-Leucine

I-Valine

### • 23 Amino acids

• PDRN

### 11 Vitamins

D-Biotin Choline chloride D-Calcium pantothenate (B5) i-Inositol Niacinamide Pyridoxine hydrochloride Thiamine hydrochloride Folic acid Riboflavin Vitamin B12 p-Amino benzoic acid

### 6 Minerals

Sodium chloride (NaCl) Potassium chloride (KCl) Sodium phosphate dibasic (NazHPO4) Potassium phosphate monobasic (KHPO) Magnesium sulfate (MgSO4) Calcium chloride (CaCh)

#### 2 Polymers

Sodium hyaluronan Sodium DNA

#### 23 Amino Acids L-Tryptophan

Dextrose Sodium acetate

Other components

### Antioxidants

Ascorbyl Glucoside L-Glutatione

### Vitamins:

• Speed up collagen synthesis

### Amino acids:

• Build extracellular matrix proteins, mainly collagen

### **Minerals:**

• Help regulate the body's water balance

### **PDRN:**

 Inhibits activation of inflammatory activating proteins caused by Reactive Oxygen Species (ROS) and leads to collagen production

# The Impact of VAMP<sup>™</sup> on the Skin





 Manufactured by Prollenium, VAMP<sup>™</sup> delivers the ultimate skin rejuvenation experience using only the highest quality ingredients- setting a new standard for skin revitalization. Its powerful blend of vitamins, amino acids, minerals and PDRN work synergistically to promote hydration and provide a radiant, youthful complexion.

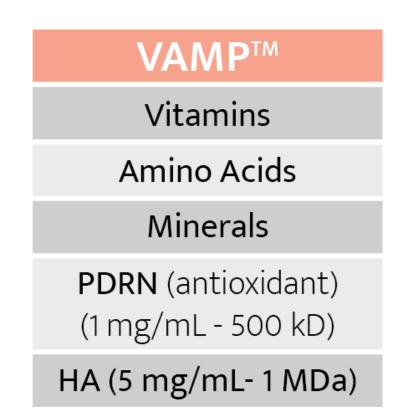
Key Differentiators:

- Made in North America
- Made in a GMP facility
- Medical-grade ingredients
- Nutrient rich ingredients + PDRN









- HA\* (1MDa) and PDRN (500 kD) of 1 mg/mL are optimal for sterile filtration as the mixture is not highly viscous and can be processed easily
  - Filtration preserves the components (vitamins, amino acids) which are sensitive moist-heat sterilization typically used in fillers
- VAM from VAMP provide nutrients to the skin
- **P** from VAMP exhibits anti-inflammatory properties helping to reduce damage from oxidation

\*HA is the same source as Revanesse<sup>®</sup> Versa+<sup>™</sup> (HTL) but different molecular weight. (Molecular weight of HA in Versa+<sup>™</sup> is 2.5 MDa)

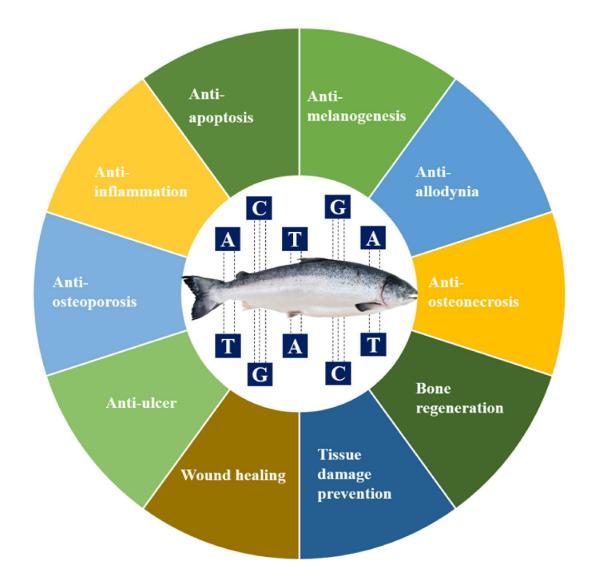


**PDRN** (Polydeoxyribonucleotides) are fragments of low molecular weight DNA extracted from wild salmon.

- Salmon DNA has 95% similarity to human DNA <sup>1</sup>
- Highly purified and biocompatible <sup>2</sup>
- Inhibits the signs of aging due to free radicals <sup>2</sup>
- Tightens and improves skin's elasticity <sup>2</sup>

# **PDRN for Medical and Aesthetic Bio-Revitalization**





# How does PDRN work?

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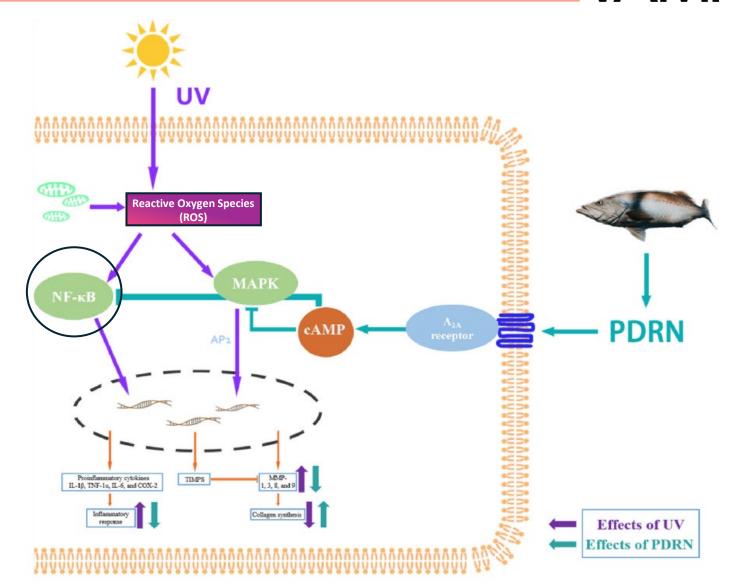
Fibroblasts are the major FIBROBLAST Fibroblasts: cells that contribute to extracellular matrix (HA, collagen) maintaining youthful component of the skin and are in appearance the dermal layer Collage fibrils Extracellula Building blocks for collagen and . matrix Enzyme elastin Fibroblast 'collapse' Growth facto Polynucleotides attach to the fibroblast, which stimulates them to Elastin work more efficiently which leads to lyaluroni acid more collagen, elastin production, and fibroblast reproduction Oxidative stress (such as sunlight/UV Lack of Nutritional materials radiation) and air pollution Poor nutrients supply results in the reduced biosynthetic activity of fibroblasts EXTERNAL INTERNAL Addressed by the introduction of Addressed by the introduction of nutrients (dextrose, antioxidants (PDRN) used in VAMP Amino Acid, vitamins and minerals)

BY PROLLENIUM

# What is PDRNs mechanism of action in skin anti-aging?

The production of Reactive Oxygen Species (ROS) initiates a cascade of events starting with the activation of the mitogen-activated protein kinase (MAPK) and NF- $\kappa$ B signaling pathways, which eventually lead to an increased expression of pro-inflammatory cytokines and matrix metalloproteinases (MMP) and a decrease in TGF- $\beta$ /Smad signaling and collagen synthesis.

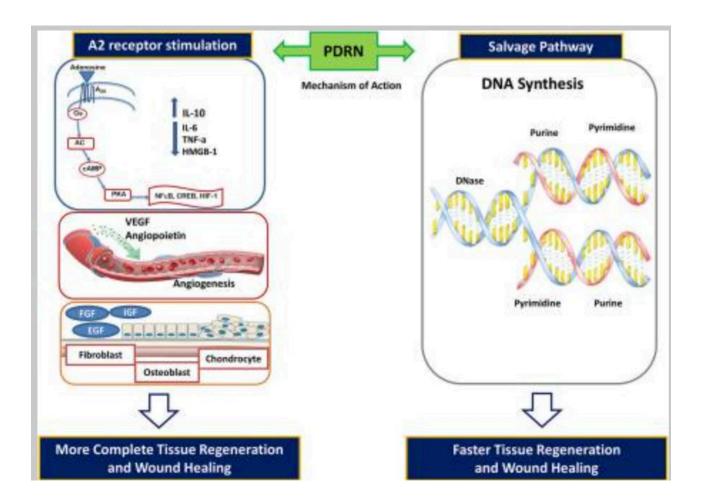
The mechanism of action of PDRN involves the activation of the  $A_{2A}$  receptor. This leads to the blocking of the NF- $\kappa$ B pathway, thus inhibiting the release of several pro-inflammatory cytokines and stimulating the release of anti-inflammatory cytokines.



VAMP

# What is PDRNs mechanism of action in skin anti-aging?



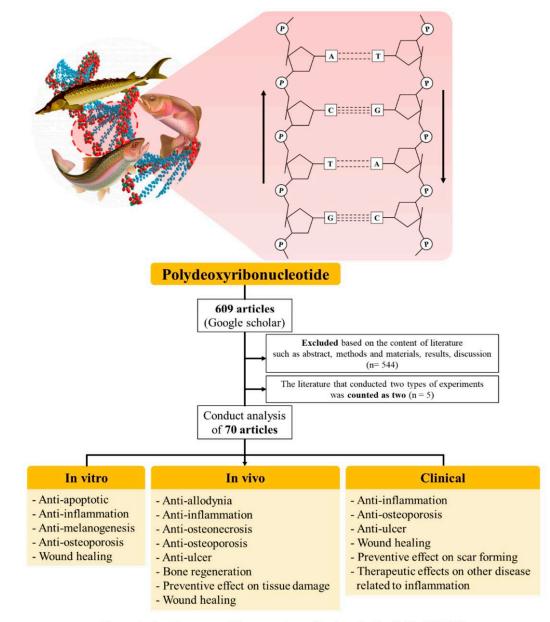


PDRN mode of action: activation of adenosine A2 receptors and the "salvage pathway"

Squadrito, F., Bitto, A., Irrera, N., Pizzino, G., Pallio, G., Minutoli, L., & Altavilla, D. (2017). Pharmacological Activity and Clinical Use of PDRN. Frontiers in Pharmacology, 8, 224.

### **PDRN Evidence Based Applications**





Kim T-H, Heo S-Y, Oh G-W et al., *Marine Drugs*, 2021;19(6):296. Atef M and Ojagh SM, *J Funct Foods*, 2017;35:673–681. Figure 1. A wide range of therapeutic applications in the field of PDRN.

Using VAMP<sup>™</sup> in combination with micro-channeling/mesotherapy aesthetic devices that allow the solution to penetrate into the stratum corneum could potentially make it more effective.

- Derma Roller
- Microneedling
- Post Laser



**Recommended Protocol** 

- 3 treatments at intervals of 30 days
- Additional treatment every 3 6 months if the practitioner deems it necessary based on skin quality

### This product is intended for topical use only and to be applied by a healthcare provider

# How can VAMP<sup>™</sup> be administered?

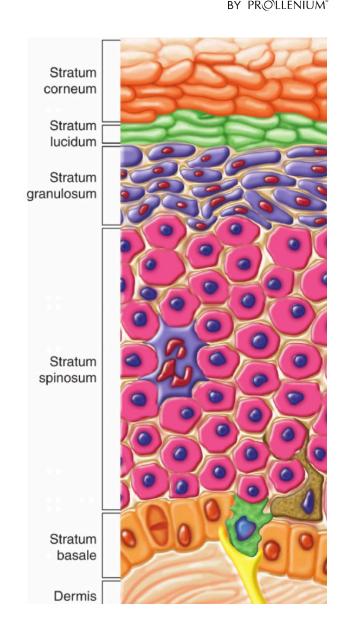




## **VAMP™** Topical Application for Superficial Layers of the Skin

- The stratum corneum is the most superficial and barrier layer of the skin. According to the FDA definition, the stratum corneum is "the superficial or outer layer of the epidermis, consisting of several layers of flat, keratinized, non-viable, peeling cells".
  - It's considered a dead cell layer of skin, as opposed to living layers of skin.
  - The thickness of the stratum corneum can vary based on age, sex, and ethnicity.
    - A darker skin male will most likely have thicker stratum corneum than that of an elderly Caucasian female.

Regulatory Considerations for Microneedling Products Guidance for Industry and Food and Drug Administration Staff. Document issued on November 10, 2020. Retrieved from https://www.fda.gov/media/107708/download#:~:text=Stratum%20corneum:%20The%20stratum%20corneum,to%20living%20lay ers%20of%20skin. Lecturing Notes, Assignment, Reference, Wiki description explanation, brief detail. *The Massage Connection ANATOMY AND PHYSIOLOGY: Integumentary System: Structure of the Skin.* Retrieved from https://www.brainkart.com/article/Structure-of-the-Skin 20884/Study Material



# $\mathsf{V\!AM\!P}^{\scriptscriptstyle\mathsf{T}\!\!}$

Multi-Vitamin Serum / Sérum Multivitaminé Net Wt 2 x 1.00 mL / 0.034 f I. OZ (US)

Prollenium US Corporate Office 9121 Anson Way, Suite 200 Raleigh, NC 27615 877.202.0987

Prollenium Medical Technologies, Inc. Global Headquarters. 29 East Wilmot Street Richmond Hill, Ontario, L4B 1A3 877.202.0987



#### Product Usage Guidelines Directives d'utilisation du Produit

#### WHAT IS VAMPTM?

A bio-revitalizing sterile solution enriched with a powerful blend of vitamins, amino acids, minerals and PDRN for skin rejuvenation and revitalization. VAMP<sup>™</sup> helps to improve skin tonicity, tighten pores, reduce the appearance of wrinkles and improve skin hydration and texture.

#### **DIRECTION FOR USE**

Use only on clean skin by applying it directly to the surface of the skin or by using a device designed for that purpose. The product is meant to be used on the outer layer of the skin (epidermis) to work effectively. Do not inject this product into the body. This product should only be used by trained professionals. The recommended protocol is to apply 1 box (2 syringes) of product each time, 3 times in total with 30 days between each application.

#### INGREDIENTS

Water, Sodium Chloride (NaCl), Sodium Hyaluronan, Sodium Phosphate Dibasic (Na2HPO4), Sodium DNA, Dextrose, Potassium Chloride (KCl), Potassium Phosphate Monobasic (KH2PO4), Magnesium Sulfate (MgSO4), Calcium Chloride (CaCl2), L-Glutamine, Ascorbyl Glucoside, L-Arginine free base, L-Alanine, Sodium Acetate, L-Proline, L-Lysine hydrochloride, L-Isoleucine, L-Leucine, Glycine, L-Threonine, L-Valine, L-Tryptophan, Taurine, L-Tyrosine, L-Cystine, L-Phenylalanine, L-Glutathione, Vitamin B12, Ornithine, L-Asparagine-H20, L-Histidine free base, L-Glutamic Acid, L-Methionine, L-Serine, L-Aspartic acid, i-Inositol, HydroxylL-proline, Niacinamide, Pyridoxine hydrochloride, Thiamine hydrochloride, Folic Acid, D-Calcium pantothenate (B5), D-Biotin, Riboflavin.

#### STORAGE

Store at room temperatures away from direct sunlight.

#### CAUTIONS

1. Topical use only.

2. Sterile solution for single use only.

- 3. Not for use on cuts, burns, wounds, or other compromised skin.
- 4. Should irritation occur, rinse off, cease use, and consult a physician.

#### **MANUFACTURER**

Prollenium Medical Technologies, Inc. 29 East Wilmot Street, Richmond Hill, ON L4B 1A3, Canada

Report any adverse event to, Tel: +1-866-353-3017