PDRN: Real Science *in a Sea of Counterfeits*

Let's look at PDRN (Polydeoxyribonucleotide) and PN (Polynucleotide)

Whilst the science behind DNA-derived skin repair is genuinely compelling, the market has become flooded with products that deliberately exploit consumer confusion.

Where there is high demand, there is often deep deception.

Today, the market is saturated with products that claim the *'regenerative'* label while offering nothing more than basic hydration.

We aren't just here to talk about DNA repair; we are here to look at the regulatory gaps and 'glorified HA' that are currently compromising clinical integrity.

⚠ **The aesthetic industry is currently facing a transparency crisis**

We are seeing an influx of products that use 'PDRN' as a buzzword rather than a biological standard. If a product lacks the correct molecular weight or concentration, it isn't regenerative; it's just a moisturiser with a premium price tag.

PN vs PDRN: The Science of Sequence

Why Chain Length Distinguishes *PN from PDRN*

Marketers use these terms interchangeably, treating them as synonyms for marketing convenience. Biologically, however, they represent entirely different tiers of effectiveness and longevity. Understanding this distinction is essential for any practitioner making evidence-based treatment decisions.

PN (Polynucleotide)

Think of PN as a long-chain DNA scaffold. It remains in the skin for weeks, acting as a physical 'house' that cells can colonise and grow within.

This persistence is precisely why it commands premium pricing and delivers measurable results in clinical studies.

PDRN (Short Fragments)

These are short fragments; essentially the molecular 'scraps' left over from PN production.

Whilst PDRN excels at anti-inflammatory activity, it's metabolised by the body within days. The biological half-life is dramatically shorter.

The Marketing Deception

This long-chain stability allows PN to perform mechanotransduction, physically stretching fibroblasts to trigger massive collagen production.

Short-chain PDRN simply cannot achieve that.

SCIENCE: The Salvage Pathway (Efficiency)

1

De Novo (From Scratch)

The De Novo Pathway is the primary method cells use to synthesise nucleotides (the building blocks of DNA) from scratch.

It relies on basic precursors like amino acids (glutamine, aspartate, glycine), carbon dioxide, and ribose-5-phosphate.

However, this process is incredibly 'tiresome' for the cell: This energy-intensive method is Slow, Costly & Inefficient.

2

The Salvage Pathway (Recycling)

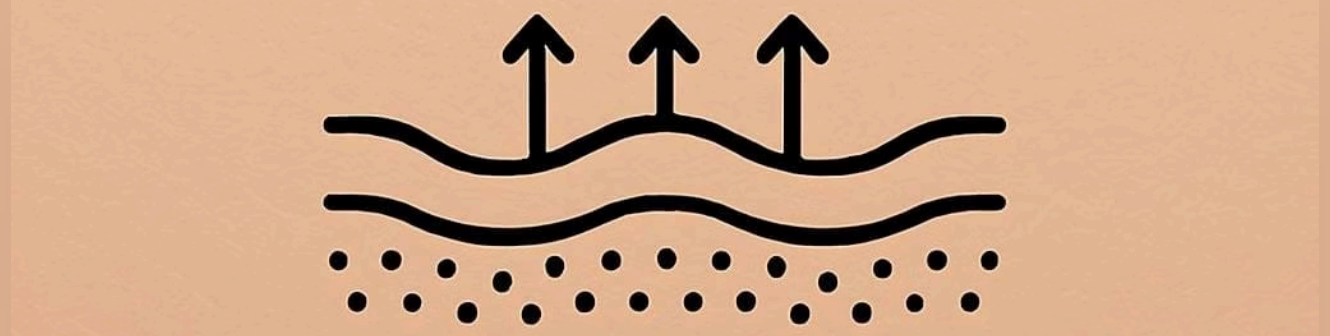
PDRN provides nucleosides as raw materials, allowing damaged or ageing cells to repair and replicate DNA much faster by *bypassing the energy-intensive De Novo process.*

3

Molecular Precision

This process requires a specific molecular weight range of 50 to 1,500 kDa.

Plant PDRN or unpurified fish DNA often falls outside this range - either too large to be used or too small to remain stable. The Salvage Pathway never actually happens.



The '500 Dalton Rule' *(Topical vs. Injectable)*

This is the *strongest argument against PDRN serums.*

The Science

Human skin has a natural barrier called the 500 Dalton Rule.

Any molecule larger than 500 Daltons cannot penetrate the *stratum corneum* (the outer skin layer).

The Reality Check

PDRN typically has a molecular weight of 132,000 Daltons -*264 times the limit.*

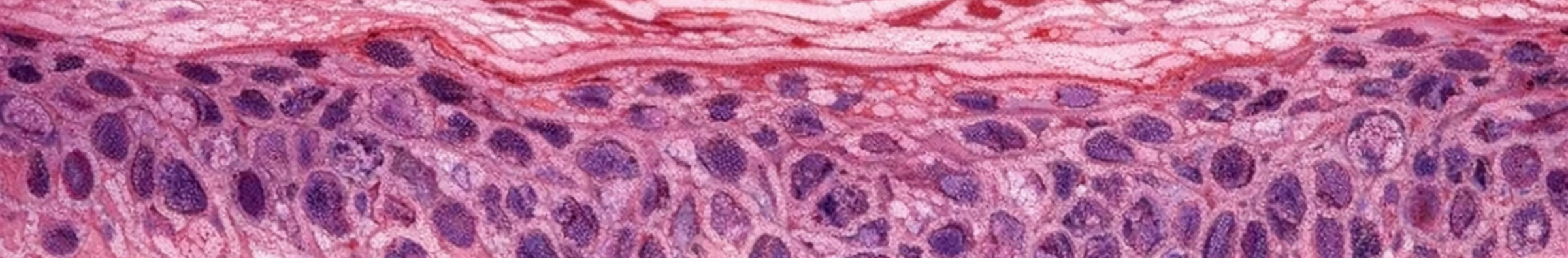
Most high-quality PDRN manufacturers target a mean molecular weight of approximately 132 kDa (132,000 Da).

The Fact

The Dalton (Da) count doesn't lie. While the skin's absorption limit is capped at 500 Da, even the most fragmented PDRN sits at 50,000 Da. That is a 10,000% size discrepancy - meaning your cream is just sitting on the surface.

Unless a serum or a cream uses advanced 'Plasma-engineered' nano-delivery or is paired with Microneedling (MTS), topical PDRN literally sits on top of the skin until you wash it off.

It is physically impossible for it to reach the dermis where collagen is made.



Why PDRN Creams are a Marketing Hype:

The Bio-Barrier Problem

1. Electrostatic Repulsion & Barrier Science

The skin's inherent electrodynamics actively repel PDRN molecules. It's not merely a matter of molecular size; the skin forms a charged barrier that physically pushes these molecules away from deeper penetration.

2. The Polyanionic Conflict

PDRN is a Polyanionic Polymer, meaning its phosphate groups carry a strong negative charge. Healthy skin also maintains a net negative surface charge (Zeta potential).

Basic electromagnetism dictates that like charges repel, causing topical PDRN to be levitated off the skin's surface.

3. Hydrophilicity vs. The Lipophilic Wall

Our skin barrier is lipophilic (oil-loving), designed to keep water out.

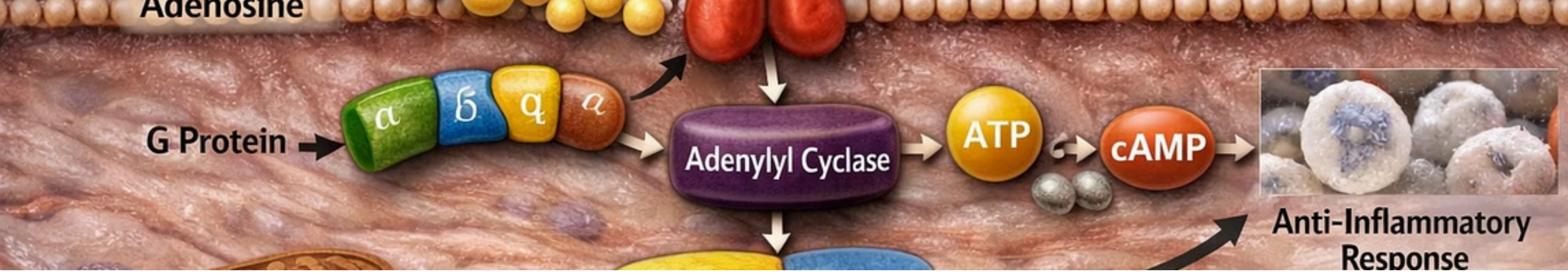
PDRN, however, is highly hydrophilic (water-loving) and forms bulky, hydrated complexes.

This fundamental incompatibility prevents water-bound PDRN from permeating the skin's fatty lipid bilayers.

4. Enzymatic Degradation

Even if some PDRN molecules overcome other barriers, the skin's surface is rich in DNases – enzymes that break down foreign genetic material. In a cream, PDRN is vulnerable to this enzymatic attack, often degrading before it can reach living cells and initiate repair.

> **PDRN cream is essentially an expensive moisturiser. You might get a surface glow from the other ingredients, but the DNA Repair never actually happens because the molecules never reach the target receptors.**



The '<u>A2A Receptor</u>' Mechanism *(<u>The Key</u>)*

The primary way PDRN works is not just by 'being DNA,' but by acting as an Adenosine A2A Receptor Agonist.

<u>PDRN Breaks Down</u>

Injected PDRN fragments into <u>nucleotides</u> that bind to *A2A receptors* on the surface of your cells. For the Salvage Pathway to turn on, your cells must be flooded with a <u>Specific Density</u> of PDRN fragments.

Upon injection, Polydeoxyribonucleotide undergoes enzymatic hydrolysis, breaking down into smaller extracellular nucleotides and nucleosides. These fragments function as selective ligands for the A2A adenosine receptors located on the plasma membrane of target cells (such as fibroblasts and osteoblasts).

<u>The Cell Gets the Signal</u>

Binding suppresses inflammatory cytokines (TNF−α, IL−6) and triggers production of VEGF (Vascular Endothelial Growth Factor) for tissue repair.

This is a master signalling protein that jumpstarts the production of new micro-blood vessels, a process known as *angiogenesis.*

<u>Concentration Is Everything</u>

Too low a concentration = not enough fragments to bind = no signal = <u>no tissue repair.</u>

When a product falls below this critical concentration, it becomes a 'ghost ingredient' treatment.

You are paying for the promise of DNA repair, but what you are actually receiving is just temporary hydration from the Hyaluronic Acid (HA) carrier.

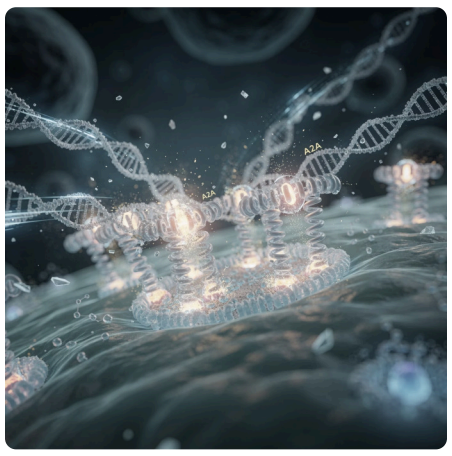
When a brand prominently highlights <u>Niacinamide</u> and <u>Hyaluronic Acid</u> in their marketing, they're using inexpensive ingredients to create a temporary glow that masks the complete absence of meaningful DNA content.

That initial healthy glow isn't regeneration — it's hydration

Injection: The Concentration Game

What Clinical Grade Actually Means

The 2.25mg/ml PDRN Threshold: Signal Saturation



1 Receptor Saturation

At **2.25mg/ml**, interstitial fluid reaches a high enough density of DNA fragments to flood the **A2A adenosine receptors**.

2 The Cascade

Saturation triggers rapid suppression of **pro-inflammatory cytokines** and immediate upregulation of **VEGF**.

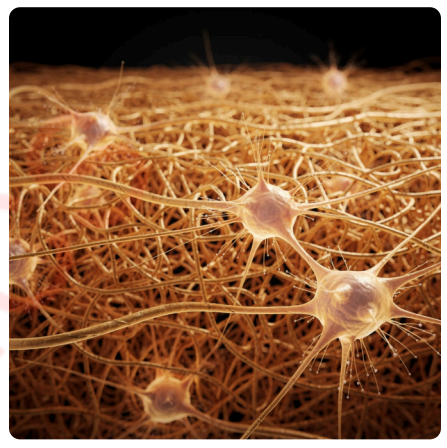
3 Below the Threshold

Drop below this level and receptor binding becomes too sporadic to initiate a full-scale repair response - PDRN is metabolised as simple nutrients, not a regenerative signal.

4 Clinical Validation

These aren't just arbitrary numbers. They represent years of clinical validation and regulatory approval.

The 20mg/ml PN Standard: The Structural Matrix



Dual-Purpose

True **Polynucleotides (PN)**, such as **Rejuran**, are formulated at **20mg/ml** because their role is both signalling and scaffolding.

Mechanical Transduction

The physical tension as fibroblasts move through the PN matrix (mechanotransduction) signals them to produce **type I collagen** and elastin at an accelerated rate.

Long-Chain Complexity

PN molecules are longer and more heat-stable than PDRN. At **20mg/ml**, the solution creates a highly viscous **3D viscoelastic matrix** within the dermis.

Sustained Release

This density keeps PN in the tissue longer — a sustained biological signal for **long-term Biostimulation**, not a quick temporary boost.

⚠ **In the cosmetic market, manufacturers often play a numbers game to confuse buyers.**

You will see labels boasting 10,000 ppm or 50,000 ppm, which sound massive but are often just clever ways to hide a low-concentration reality.

The Math of Marketing

PPM vs. mg/ml

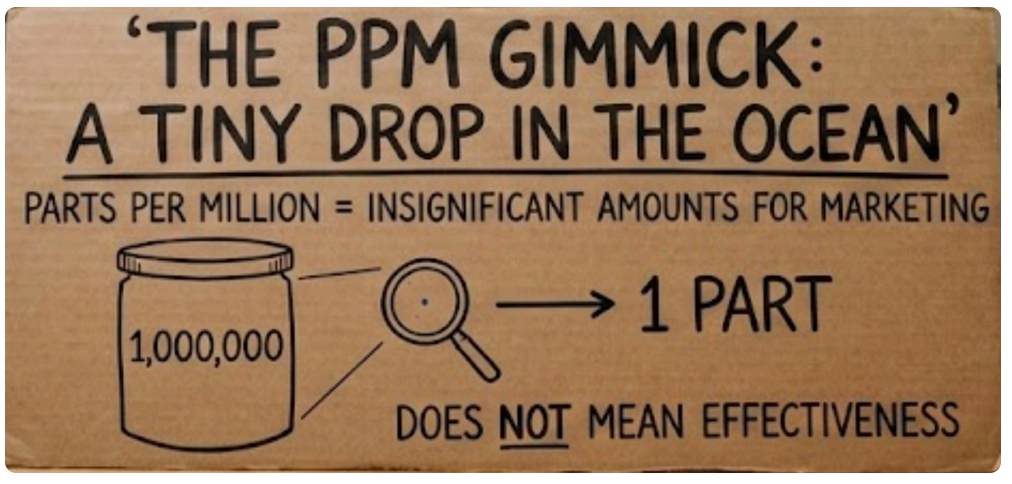
PPM stands for Parts Per Million. In the world of cosmetics, this is a distraction.

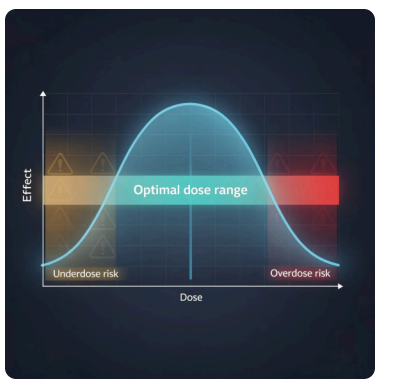
100,000 ppm = 10%
10,000 ppm = 1%
1,000 ppm = 0.1%
100 ppm = 0.01%

0.1% concentration = 1 mg/ml

1.0% concentration = 10 mg/ml

2.0% concentration = 20 mg/ml





The Clinical Tipping Point

2.25 & 20

There are two primary activity levels in the injection world.

If your product doesn't hit these numbers, it is likely a maintenance product rather than a regenerative one.

1 The Signalling Dose (2.25 mg/ml)

This is the standard for PDRN. The goal is pure cellular signalling. At this concentration, the DNA fragments are dense enough to saturate the A2A receptors.

Anything lower is often sub-therapeutic, meaning cells don't receive a strong enough signal to bother repairing themselves.

2 The Structural Matrix (20 mg/ml)

This is the standard for true Polynucleotides (PN) like Rejuran.

The role is both signalling and scaffolding, creating a viscoelastic matrix for sustained Biostimulation.

Why *More* Isn't Always Better

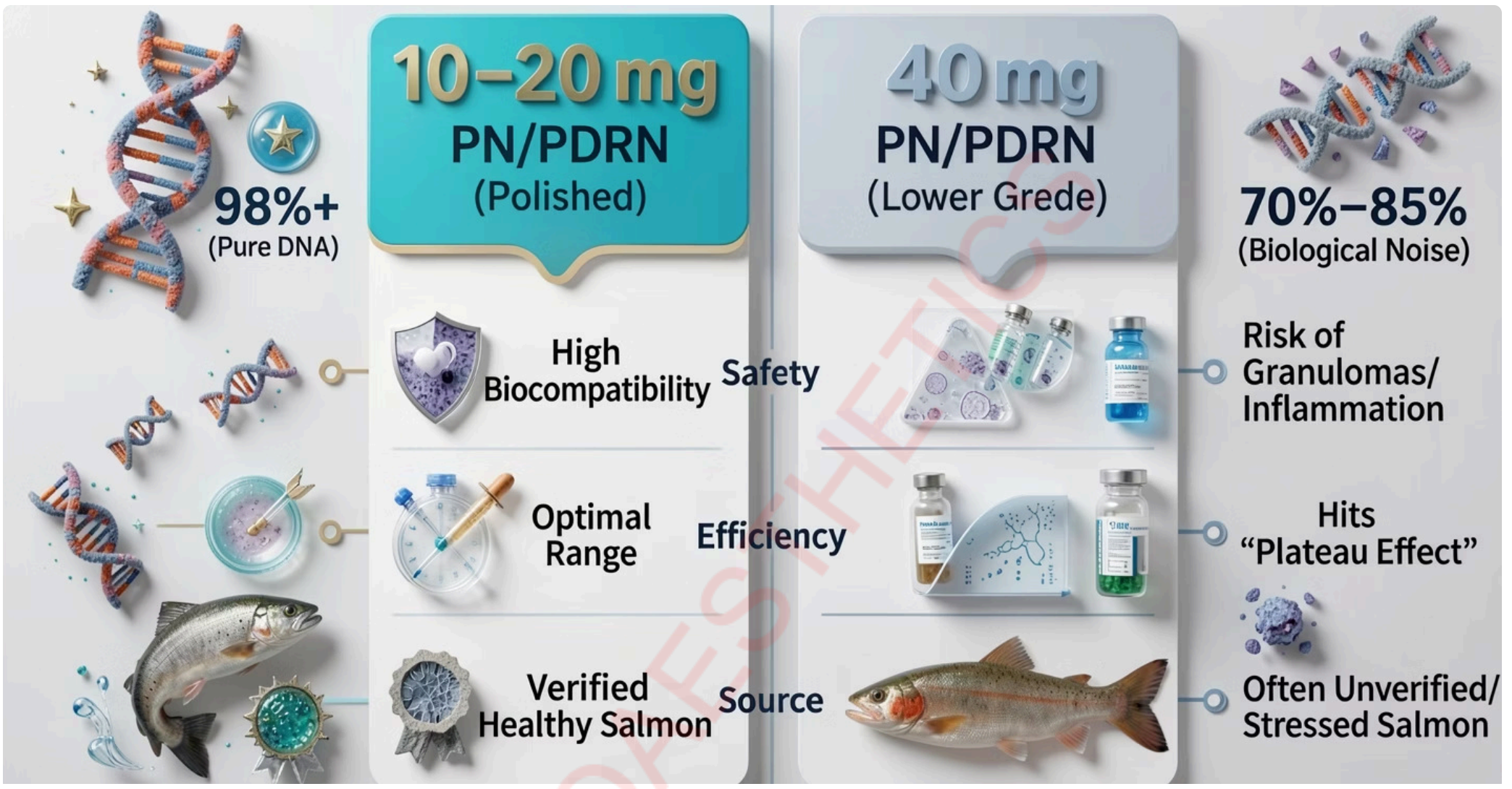
Some ODMs are now pushing High-Dose products at 40 mg/ml or higher. However, science shows a therapeutic ceiling.

Viscosity Issues

At ultra-high concentrations, the product becomes too thick to be absorbed by the cells effectively, leading to lumps or prolonged swelling.

Inflammatory Risk

Over-loading the tissue with foreign DNA can trigger an immune over-reaction rather than a healing response.



Excess PN that cannot bind to receptors must be broken down by the body's enzymes. This process can actually place temporary metabolic stress on the local tissue, potentially leading to increased inflammation- the very thing PN is supposed to reduce.

Many trending 40 mg products are actually hybrid formulas (e.g., 20 mg of PN mixed with 20 mg of Hyaluronic Acid). A buyer might see '40 mg' on a box and assume it is pure, high-strength PN. In reality, the 20 mg of HA is there to provide immediate hydration/plumping, while the PN does the long-term repair.

The jump from 20 mg to 40 mg is not just about 'more DNA'; it fundamentally changes the rheology (how the liquid flows) of the product.

A 10 - 20 mg pharmaceutical-grade, Chromatographically polished PN is vastly superior to a 'Lower Grade' 40 mg extract that is filled with biological noise.

The Export-Only Deception

Within the Korean aesthetic manufacturing industry, the 'Export Only' designation carries a specific and consequential implication that most international buyers fail to understand.

The Missing COA

Export-only brands frequently advertise High Concentration claims without ever providing a Certificate of Analysis to back them up.

⚠ **Manufacturers use international markets as Testing Grounds for new formulas that have not yet proven their long-term safety to Korean regulators.**

Products manufactured specifically for foreign markets allow the manufacturer to bypass the cost and scrutiny of MFDS clinical trials.

⚠ **Medical grade PDRN requires high purity extraction. Lower-grade Export-only variants often skip Chromatographic Polishing, leaving behind residual proteins and lipids that can trigger late onset granulomas or allergic reactions.**

Efficacy depends on a specific molecular weight. Export only products frequently lack the standardised fragmentation needed to actually signal skin repair, acting instead as a simple, short-term lubricant.

The *'Black Box'* of Sourcing

Most Korean PDRN / PN brands do not disclose the specific origin of their salmon DNA. While the gold standard set by companies such as PharmaResearch *Rejuran* is wild-caught Chum Salmon or Rainbow Trout, the massive surge in demand has led to a reliance on industrial-grade milt (sperm) from various sources that lack transparency.

⚠ **Geographic Anonymity:** Labels rarely specify if the fish were sourced from intensive, high-density industrial fish farms, which are often criticised for their environmental impact and use of antibiotics. (High-density pens are linked to sea lice infestations, eutrophication, and genetic pollution)

⚠ **The ODM System Effect:** Most PDRN / PN products are manufactured by ODM (Original Design Manufacturing) firms.

Brands simply 'white-label' a formula, meaning the brand owner often has very little input in the manufacturing process & everything is outsourced entirely.

Many brands have little to no input on the actual production standards, quality control, or refining techniques used. They do not know about the actual fishery or the extraction lab, or where ingredients have come from.

The Source: Not All Salmon Are Equal

HIGHEST QUALITY RECORD

🥇 O. keta

Chum Salmon

The gold standard for medical-grade PDRN and PN.

Historically been sourced from wild-caught populations in pristine waters to ensure DNA integrity and freedom from growth promoters. However, the industry is seeing a shift toward Cold-Water RAS (Recirculating Aquaculture Systems). RAS provides a sterile, highly controlled environment that eliminates 'epigenetic stress' and contamination risks such as microplastics, heavy metals, and environmental pollutants commonly found in the open ocean.

COST-EFFECTIVE

🥈 O. mykiss

Rainbow Trout

As one of the most extensively studied and domesticated fish species globally, *O. mykiss* provides a highly standardised and cost-effective source for medical-grade PDRN.

Sharing approximately 95% DNA similarity with humans, it offers a cost effective solution for both clinical and cosmetic applications. Its unique biological versatility allows for consistent, year-round harvesting from both freshwater inland facilities and saltwater sea-run coastal farms.

⚠ **Extraction Methods: Brands don't have to disclose whether the DNA was extracted using harsh chemical solvents or through eco-friendly enzymatic processes.**

Waste or Harvest?

The global Salmon DNA-based skin care product market size has grown rapidly.

This demand shifts the narrative from 'upcycling byproduct' to an aggressive industrial reality where salmon are harvested specifically for their genetic material.

The Bio-Laundering Risk

Without strict traceability, 'unethical' and 'low-grade' fish DNA can be purified to an undetectable point, allowing brands to sell premium products without ethical source proof.

No Global Watchdog

Industrial DNA sourcing from bulk suppliers in regions with weak fishing regulations and species preservation.

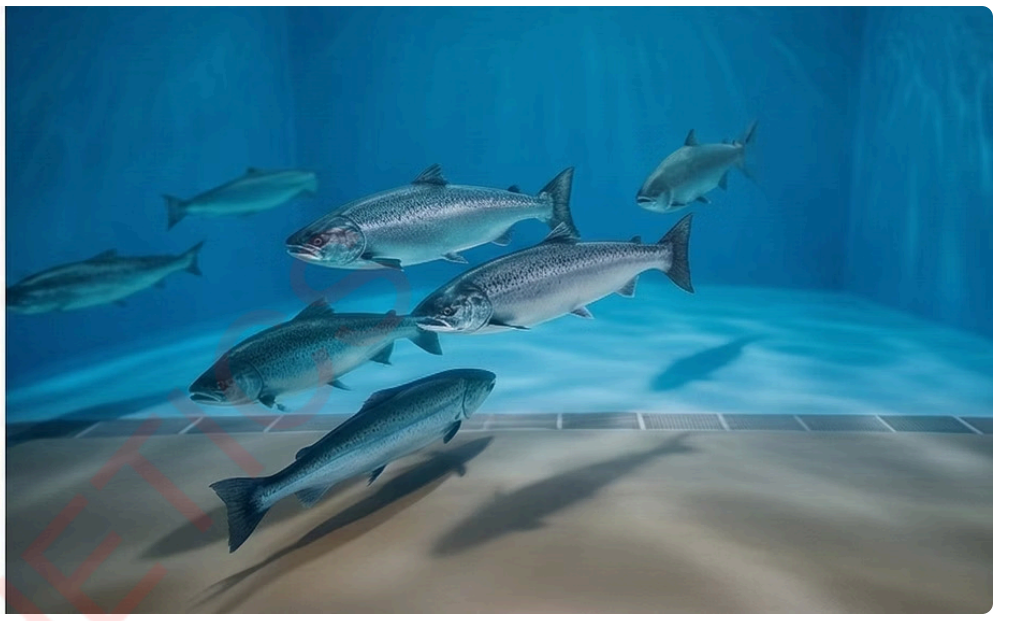
There's no global watchdog for salmon DNA, making quality and ethics hard to trace.

Many brands use industrial grade DNA sourced from bulk suppliers in countries where fishing regulations and species preservation are loosely enforced.

⚠ SICK FISH

Healthy vs. Stressed DNA

The Stress Marker: ***Salmon raised in overcrowded or overheated farms produce higher levels of cortisol and inflammatory biomarkers.***



DNA harvested from salmon in high-stress, high-temperature farms has a different molecular signature than DNA from either Cold-Water RAS or Healthy Fresh-Water Wild-Caught Oncorhynchus keta.

⚠ ***The Chain of Custody***: **Many trending, low-cost labels mask a source-chain where the health of the salmon, and thus the purity of the DNA was never verified. Most cheap and low grade manufacturing lines have opted out of Chromatographic Polishing. Without this step, the PDRN is biologically noisy, it contains the fragments of the salmon's life (proteins, lipids, and stress markers) that have no place in a human dermis. In the world of injectables, this is a critical failure.**

When evaluating trending PDRN or PN products, practitioners and buyers must look past the marketing and demand technical proof.

✓ The HPLC Chromatogram

Real PDRN is not just 'Salmon DNA'; it is a highly engineered fraction of that DNA. A reputable manufacturer must be able to provide an HPLC (High-Performance Liquid Chromatography) report.

The Technical Reality of Lower Grade Salmon DNA

The Purification Gap:

Medical-grade PDRN undergoes rigorous HPLC (High-Performance Liquid Chromatography) to ensure purity of 98% or higher. Lower grade variants rely on basic filtration, leaving behind residual salmon proteins, the primary cause of late-onset granulomas and chronic inflammation.

The Molecular Smear:

Real science requires PDRN to be a highly engineered fraction of DNA.

Lower-grade products present as a 'smear' of molecular weights rather than a precise, bioactive range. Without correct fragmentation, the product cannot effectively signal the A2A receptors responsible for skin regeneration.

Safety vs. Savings:

Choosing lower-grade is essentially opting out of the stringent clinical validation required for the domestic Korean market.

These products are diverted to international markets where regulatory oversight on biological purity is less mature.

The 1.8 – 1.9 Purity Rule

In the lab, we use a specific measurement to check if DNA is pure or contaminated with *junk* proteins. This is called the A260/A280 ratio.

The Gold Standard is 1.8 to 1.9. If the number is lower, the sample is dirty with proteins.

If it's higher, it may be contaminated with RNA.

A ratio of 1.8–1.9 is the scientific fingerprint of pure, medical-grade DNA. Anything else is just a compromise.

⚠ The Topical Loophole: How Products Bypass Injectable Safety Standards

This regulatory gap represents the most dangerous aspect of the current industry landscape. Understanding how products circumvent safety requirements is essential for protecting both practitioners and patients.

Classified Medical Device

To be legally injected, a product must pass rigorous sterilisation protocols, endotoxin testing, and purity standards.

These requirements exist for numerous reasons; injectable products enter the dermis directly.

The Cosmetic Registration Trick

Many Salmon DNA brands cleverly register as Topical Cosmetics with regulatory bodies. This classification allows them to bypass the stringent safety standards required for injectable medical devices entirely.

The Clinical Danger

When a product formulated for topical application is instead injected into the dermis, the impurities (particularly residual fish proteins) can trigger severe immune responses, including granulomas and delayed hypersensitivity reactions. Currently we don't know the long term implications.

Polydeoxyribonucleotide (PDRN) has been used in medical settings, such as healing diabetic foot ulcers, severe burns, and tendon repairs since the 1990s. However, its use in cosmetic skincare and aesthetic injectables is still fairly new. At this time, there are no verified long-term studies spanning many years or decades that examine the effects of repeated, regular cosmetic use of PDRN and Polynucleotide (PN).

This means that while short-term results appear promising, the long-term impact is not yet fully known. For this reason, transparency, proper documentation (such as a Technical Data Sheet/Certificate of Analysis or TDS/COA), and cautious clinical practise are essential.

⚠ **The lack of transparency in the Korean aesthetic industry is not accidental - it stems from how South Korean law balances trade secret protection against consumer safety, especially for products destined for export.**

Transparency & Risk in the Korean Aesthetic Market

1

The Trade Secret Legal Shield

Under the Unfair Competition Prevention and Trade Secret Protection Act, companies can legally withhold the exact percentages of active ingredients if claimed as proprietary knowledge. Ingredient lists must show components in descending order - but any ingredient under 1% can be listed in any order. This loophole allows brands to place 'Salmon DNA' at the top of the sub-1% section, making it appear prominent even if present only in trace amounts.

2

MFDS Oversight & Export Products

The Ministry of Food and Drug Safety (MFDS) regulates cosmetics and medical devices primarily to protect Korean citizens. Functional cosmetics require pre-market approval. General cosmetics only require notification. Products manufactured for export often do not undergo the same depth of review as those sold domestically, meaning companies face less pressure to provide Certificates of Analysis (COA) or Technical Data Sheets (TDS) to international buyers.

3

The Result — A Warning to buyers

Because MFDS enforcement is stricter for domestic sales than for exports, many products shipped abroad are marketed with brochures instead of legal documentation. This transparency gap can hide impurities, misleading ingredient claims, or sub-standard formulations. Without demanding a COA or TDS, international buyers risk receiving products that may not meet medical-grade standards, and in some cases, could expose patients to dangerous impurities.

Request the Technical Data Sheet (TDS)

Don't ask for a brochure. Ask for the TDS or the Batch COA.
A brochure is full of promises - a TDS is a legal document that lists exactly what is inside that specific batch.

Species Disclosure

Does it say *Oncorhynchus keta* (Chum Salmon)? This specific species provides the highest quality DNA for the Salvage Pathway.

or Oncorhynchus mykiss - Rainbow Trout, second best.

The 1.8–1.9 Gold Standard

This ratio means the sample is pure, clean DNA.

It is the benchmark for biocompatible PDRN.

No Species = Red Flag

If the label does not disclose the species at all, it's a red flag that the product won't deliver the cellular results you're paying for.

COA vs. MSDS(SDS): The Document Shuffle

When customers request verification of a product's quality, suppliers frequently provide a Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS) instead of a Certificate of Analysis (COA).

This creates a significant *science gap*, as an SDS is merely a document designed for the safe handling, transport, and storage of materials, it confirms that a substance is not flammable or acutely hazardous, but it does not verify the actual contents, purity, or potency of the product.

In contrast, a COA serves as a batch-specific laboratory report that provides concrete proof of the formula’s composition, such as the precise concentration of DNA measured in mg/ml.

Because the technical distinctions between these documents are often misunderstood, some companies intentionally offer an SDS to satisfy documentation requests, relying on the fact that many practitioners cannot distinguish between a basic safety summary and a definitive, batch-verified report of efficacy.

⚠️ If a company refuses to show you a Batch-Specific COA and tries to give you an SDS instead, they may be hiding the fact that their product is diluted or hasn't been properly tested for purity.

The ODM Manufacturing Model

Almost brands do not own their own factories or any manufacturing system. They use ODMs (Original Design Manufacturers).

When a brand utilises an ODM, they aren't just outsourcing the manufacturing process, they are also leasing 'intellectual property'.

This creates a black box around the product's molecular profile.

⚠ **PN is harder to stabilise. Most ODMs can easily produce a PDRN serum, but only a few specialised labs have the technology to extract and stabilise high-molecular-weight PN without it degrading into PDRN during the process.**

The Problem: Many brands market their products as 'PN' to command a higher price, even if the actual molecular weight analysis shows it has degraded into shorter PDRN fragments.

The Missing Molecular Profile: A brand buying from an ODM rarely sees the Size Exclusion Chromatography (SEC) report. Without this, the brand cannot prove their PN isn't just overpriced PDRN.

High-quality PDRN requires a specific fragmentation process. If a brand doesn't have direct oversight of the enzymatic hydrolysis or purification chromatography, they cannot verify if the DNA fragments are the optimal size (50 to 1,500 base pairs) to actually trigger the A2A adenosine receptors in human skin.

ⓘ **FACT: In these ODM contracts, the factory owns the formula, not the brand.**

The brand's name is on the box and they are simply marketing a white-label product that the factory told them contains Salmon DNA.

RED FLAGS

How to Spot Dusting: *Reading Between the Ingredient Lines*

'Dusting' is an industry manufacturing term describing the practise of adding microscopically small amounts of an ingredient - just enough to legally list it on the label.

It's regulatory compliance without therapeutic benefit. Here's how to identify it systematically.

Ingredient Order Matters

If DNA (Sodium DNA, PDRN, or PN) is listed after Niacinamide or Phenoxyethanol in the ingredient list, the concentration is likely negligible. Ingredients are listed by descending concentration.

Missing Documentation

Absence of a Certificate of Analysis (COA) showing exact mg/ml concentration. Legitimate manufacturers provide this documentation readily.

Price That's Too Good

Real PN costs money to extract and purify. If the price seems remarkably lower than established brands, question what you're actually purchasing.

Legitimate products specify the exact fish species used.

The Impurity Risk (Granuloma Mechanism)

Why does cheap PDRN cause hard lumps?

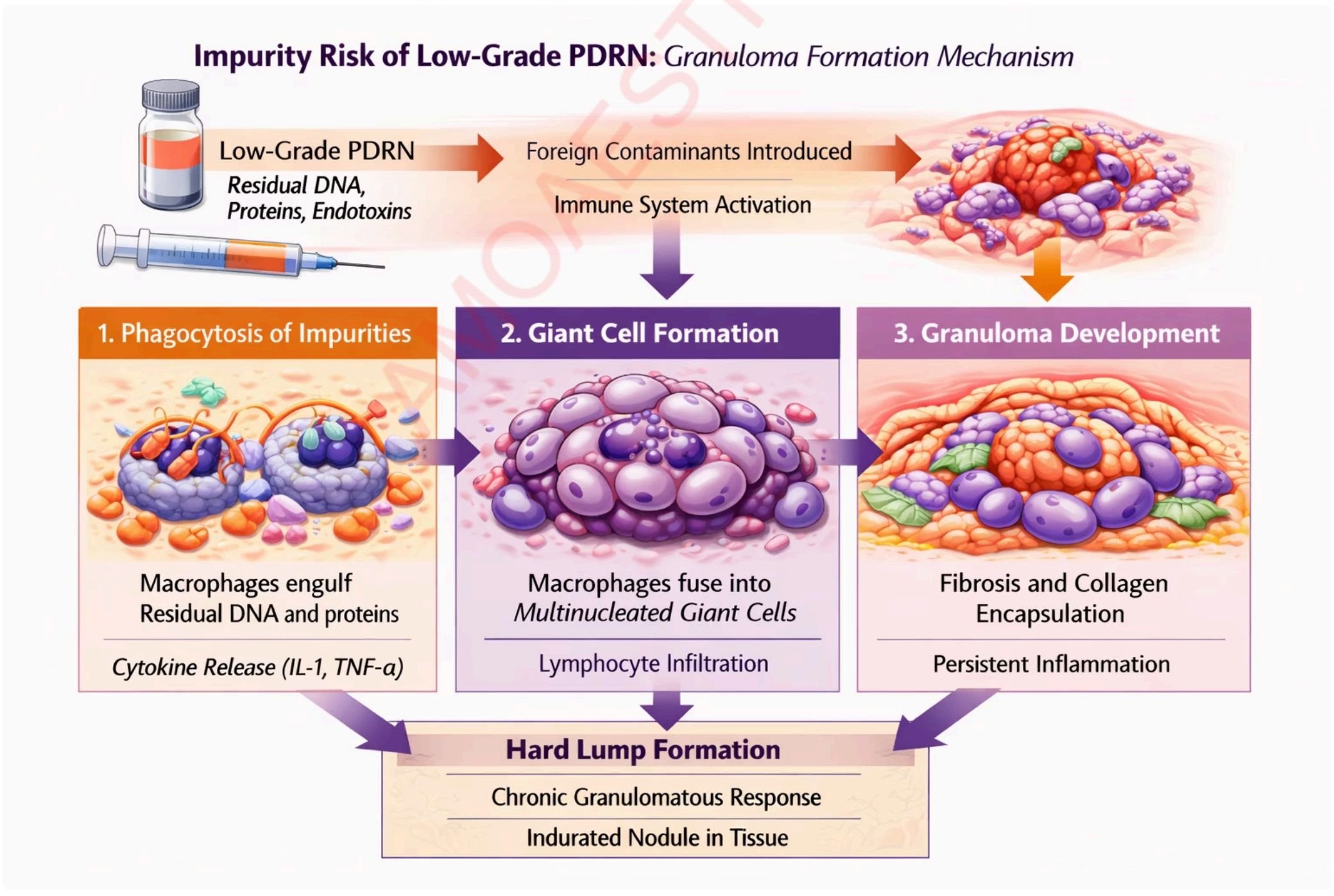
> **Administration of cheap or non-medical-grade PDRN formulations has been associated with the development of indurated nodules, attributable to the presence of impurities such as residual DNA fragments, protein contaminants, or endotoxin residues.**

1. High-quality PN products, such as Rejuran, undergo high-temperature sterilisation and ultra-purification processes that remove up to 99.9% of fish proteins and peptides. In contrast, low-cost formulations frequently omit these expensive purification steps.

2. When unrefined fish proteins are injected, the immune system identifies them as foreign antigens and mounts a defensive response.

3. Macrophages attempt to engulf and degrade the foreign material but fail to break it down completely. As a consequence, they fuse into multinucleated giant cells, which are surrounded by lymphocytes and fibroblasts.

4. This persistent immune activity results in chronic inflammation and fibrotic nodule formation. Over time, collagen and connective tissue encapsulate the foreign material, producing a hard lump known as a granuloma.



The Plant-Based PDRN 'gimmick'

An emerging trend sees brands promoting Green PDRN derived from Algae, Ginseng, or other botanical sources. The marketing sounds environmentally conscious and ethical. The biology, however, tells a completely different story.

The Marketing Hype

Whilst plant extracts are excellent antioxidants for moisturisers, plants do not possess the same DNA structure as vertebrates.

The base pair sequences, sugar backbones, and structural conformations are fundamentally different.

Salmon DNA is used specifically because its base pair structure demonstrates remarkable similarity to human DNA at the molecular level.

The Biological Reality

Plant PDRN cannot trigger the same A2A adenosine receptors in human fibroblasts that drive genuine tissue regeneration and collagen synthesis.

These receptors evolved to recognise vertebrate DNA structures.

Calling botanical extracts Salmon DNA-like is purely a marketing gimmic.

⚠ Key Takeaways: Protecting Your Practise and Your Patients

Demand Documentation

Always request Certificates of Analysis showing exact mg/ml concentration before purchasing.

No COA? No purchase.

Question Products & Verify Ingredient Order

Read ingredient lists carefully. If PDRN or PN appears after humectants or preservatives, the concentration is negligible.

Treat products with heightened scrutiny.

Verify Medical Device Status

Confirm products are registered as injectable medical devices, not topical cosmetics.

This distinction matters for patient safety.

Use Proven Products

When in doubt, stick with established brands like Rejuran (20mg/ml PN) that have clinical track records.

⚠ The aesthetic industry thrives on innovation, but genuine advancement requires distinguishing between scientific progress and marketing.

Your patients trust you to make that distinction. Don't let regulatory loopholes and clever branding undermine that trust.