

PDRN skincare is everywhere in Singapore. Does it even work?

Published Aug 20, 2026, 02:05 PM
Updated Aug 20, 2026, 02:12 PM



PDRN has become a mainstream ingredient in serums, creams, masks, ampoules and eye products. PHOTO: ADOBE STOCK

SINGAPORE – For close to a year, 37-year-old Chiarina Mapa has been experimenting with PDRN skincare. Once a week, the chemist applies a skin-tingling serum that makes little cuts on her skin, preparing it for the absorption of ginseng DNA in the product.

According to Mapa, it is more effective than regular creams, a conclusion she reached after months of research instigated by an algorithm that kept feeding her PDRN content. Short for polydeoxyribonucleotides, or DNA fragments, PDRN is sold as a wrinkle buster, pore shrinker and texture wand for crepe-y skin.

Mapa says: “I don’t fall for trends easily. But in this case, social media did get me.”

Her experience reveals the leaps the [K-beauty industry has made](#) in PDRN production development and marketing in recent years.

The ingredient was once an exotic good synonymous with its most common source, salmon sperm. Even two years ago, it was best known as a wacky in-clinic injectable used by celebrities such as American reality TV star and shapewear mogul Kim Kardashian.

Now, it has become a mainstream ingredient in skincare, with PDRN serums, creams, masks, ampoules and eye products inescapable at pharmacies and beauty chains. That these products are no longer always fishy in origin – now available in rose and ginseng – shows how far the original concept has extended.

As skincare, PDRN products have escaped their former K-beauty niche to be embraced internationally by the likes of Canadian skincare brand The Ordinary and French luxury brand Dior, which have both launched products spotlighting the ingredient.

“Beyond the more established PDRN serums and creams, we are seeing PDRN expand into newer, trend-led formats, particularly eye patches and facial mists or sprays,” the spokesman adds.

So the trendy active ingredient is now in everything and everywhere, but as it reaches saturation point, doubts about its claims are rising.

What is PDRN?



PDRN front-of-store display at Sephora in Ion Orchard. ST PHOTO: NG SOR LUAN

PDRN is purified fragments of DNA, commonly derived from salmon or trout reproductive tissue. During manufacturing, the sperm is processed so the final product contains DNA-derived fragments rather than intact sperm cells, says The Clifford Clinic managing director Gerard Ee.

Its popular label as salmon sperm is therefore memorable but scientifically imprecise, he says. Patients are not being treated with whole sperm cells.

It has been used in medicine since the 1980s, when it was introduced for wound healing and tissue repair.

When injected, it can boost skin hydration and elasticity and help heal acne scars. Its regenerative nature can also counter fine lines, crepe-y skin and enlarged pores. It may also support recovery after selected aesthetic procedures, adds Ee.

PDRN stimulates skin regeneration through two mechanisms, says Skin Longevity Clinic founder of aesthetic practice Rachel Ho.

The first is the stimulation of receptors in the cells responsible for producing collagen and elastin. They reside in the thick, middle layer of skin known as the dermis.

In the second mechanism, PDRN fragments are broken down into smaller components that skin cells then reuse as building blocks for DNA synthesis and cellular repair.

Together, these mechanisms reduce inflammation, grow new blood vessels and help with cell migration and tissue remodelling, adds Ho.

How did it start trending?

The craze has clinical roots. Before PDRN’s spillover into skincare, it was known as a skin booster injection, by far the most famous of which was the South Korean treatment Rejuran.

Rejuran gained popularity in aesthetic clinics across Asia around 2018, but it exploded into the public consciousness only in the last three years after high-profile celebrity endorsements of the salmon sperm shots.

How did it start trending?

The craze has clinical roots. Before PDRN’s spillover into skincare, it was known as a skin booster injection, by far the most famous of which was the South Korean treatment Rejuran.

Rejuran gained popularity in aesthetic clinics across Asia around 2018, but it exploded into the public consciousness only in the last three years after high-profile celebrity endorsements of the salmon sperm shots.



South Korean treatment Rejuran’s popularity drove the early days of the PDRN craze. The brand later expanded into topical skincare. PHOTO: REJURAN

Does it have to be salmon sperm?



Rachel Ho administering a Rejuran skin booster treatment to a patient. PHOTO: THE SKIN LONGEVITY CLINIC

Some doctors say the structural similarities between salmon and human DNA make it well tolerated by the body.

However, Ee caveats that salmon and trout sperm are used more because they provide a concentrated and relatively clean source of DNA that can be processed into reproducible fragments, rather than any “uniquely human-like” quality.

“In pharmaceutical-grade PDRN, extensive purification and sterilisation remove residual proteins and peptides – the components more likely to produce an immune or allergic response. Fragment size, purity, contaminants, concentration and manufacturing consistency are therefore more relevant to tolerability than genetic similarity between salmon and humans,” he says.

Salmon is therefore not a magic ingredient, which may explain the trendy crop of vegan alternatives that include rose, green tea and ginseng variants.

But not all PDRN sources are created equal.

So far, ginseng-derived and microbial-derived PDRN have produced promising regenerative effects in laboratory and reconstructed-skin studies, says Ee. A recent small human study of a peony derivative also reported good results.

However, these findings do not prove that every vegan PDRN product is effective or that it is clinically equivalent to established salmonid PDRN, he cautions.

Robust human trials comparing plant PDRN with salmon or trout are still lacking, and fish PDRN still holds the longest clinical track record.

Does it work as skincare?

With PDRN now readily available on beauty shelves, the million-dollar question is whether it works.

The short answer is that it depends. The nub of the problem is that different delivery methods lead to different levels of uptake.

Broadly, there are three ways to use PDRN: injection, topical skincare or facials and procedure-assisted topical delivery, where the product is applied after microneedling or laser treatments that temporarily alter the skin barrier.

Evidence for direct injection is the strongest and has the greatest biological plausibility for benefits in the skin, says Ho. Conversely, evidence for skin creams is the weakest. This is because PDRN is a relatively large, water-soluble DNA-derived molecule, and the skin barrier is designed to limit its passage.

While PDRN skincare has not been proven to produce results equivalent to injections, that is not to say the entire category is ineffective, says Ee.

How well a product works comes down to the minutiae of its formula – molecular size, fragment length, concentration, purity, delivery vehicle, packaging and stability.

“Two products displaying PDRN on their labels may behave very differently,” he adds.



The PDRN front-of-store display at Sephora in Ion Orchard. ST PHOTO: NG SOR LUAN

A well-formulated topical product may have a role in hydration, skin barrier support, skin maintenance or preventing mild photo-ageing between procedures.

Ho and Ee agree that improvements from topical products might be attributed to other active ingredients in the formula. Any effect would also be gradual.

Similarly, the effectiveness of a PDRN facial depends on what the treatment involves. Applying a serum to intact skin is different from combining it with microneedling or laser, and both are different from injecting a medical product directly into the dermis, says Ee.

For starters, there is no established effective minimum dose of topical PDRN, and when the problem is penetration of the skin barrier, a large PPM number cannot make up for poor formulation.

Says Ee: “Its stability, molecular size, delivery vehicle and interaction with the other ingredients in the cream or serum are what decide how much biological activity it has after topical application. A higher concentration does not necessarily make a poorly formulated product more effective.”

“I would look for realistic claims. Consumers should be cautious about claims that a cream can reproduce the effects of an intradermal injection, remodel deep acne scars or produce filler-like lifting,” he adds.

Reading the tea leaves



Gerard Ee, medical director of The Clifford Clinic, performing a PDRN skin booster treatment on a patient. PHOTO: THE CLIFFORD CLINIC

Is PDRN already passe?

After nearly a year of diligent use, Mapa says she will quit the cream as other traditional ingredients have more immediate effects.

“Skinfluencer” Gordon Chua, 30, tested five products but says it is “over for him” as there were no vast improvements to his complexion.

On the aesthetic front, Ho and Ee report dipping client numbers as newer skin boosters gain prominence. They expect a minimum level of demand to hold as the treatment is an established one. However, its position in the clinic market has changed.

Says Ee: “PDRN is not disappearing, but its period as the newest and fastest-growing skin-booster category appears to have passed.”

Euromonitor International’s Tjahjadi reckons the hype will wane. She says: “The hype around PDRN itself will likely moderate, as happens with most hero ingredients such as snail mucin, cica and propolis. However, the broader demand for clinic-inspired and science-led skincare is likely to remain.”