## **APPLICATION**



- Cosmetological MTS
- 19needles 0.5 -1mm
- Acne vulgaris & Keloid 4needles Btype 3mm + HA & Nicotinamide or Triamcinolone acetonide
- 4-5needles 2mm + HA
- Allergenic dermatitis
- 19needles 1mm or 4 5needles 2mm + HA
- & Nicotinamide & Growth factor
- 7needles 2 or 3mm
- Nanofat
- 7needles 2 or 3mm
- Skin booster
- 19needles 1mm or 4-5needles 2mm
- HA filler (Non-cross-linked)
- 4-7needles 2mm

### **FASTER EFFECT**

- Mosquito / Bug bite emergency kit (Diphenhydramine / Dibucaine / Glycyrrhetinic acid / Hydrocortisone)
- Local anesthetic
- Hemostatic injection
- Allergic urticarial (Hives)
- Papiloma

### **DEEPER LESION**

- Oncology injection
- Intralesional injections (Corticosteroids, Bleomycin, 5-fluorouracil, Methotrexate, Chloroquine and Interferons)
- Hyperplastic and hypertrophic skin disorders (Lichen simplex chronicus, Hypertrophic Discoid lupus erythematosus, Psoriasis and Cutaneous sarcoidosis)



## **HIGHER DIFFUSION RATE**

- Sprain (Chlorpheniramine maleate / Ketorolac tromethamine)
- Hypertrophic scars and keloids (Onion extract / Quercetin)
- Eczema and atopic dermatitis (Hydrocortisone)
- Hyperkeratosis
- Bruise (Vitamin K / Mucopolysaccharide polysulfuric acid)









# REFERENCE



## ■ MicroettePlus™ Automated test system¹¹

Specimen Porcine skin eGFP (2mg/ml) in PBS  $\textbf{Investigational substance} \, \mathsf{TURTLEPIN}^{\otimes} \, \hspace{.1cm} \underline{\hspace{.1cm}} \hspace{.1cm} \mathsf{0.5mm}$ 

Average	min		
	0	30	60
NC	242	225	279
0.5mm	269	7403	8302

**■ TURTLEPIN® III In-vivo test**<sup>1</sup>

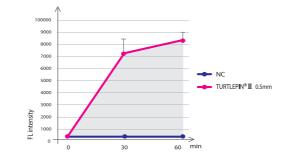
Mouse: balb/c-nu/nu(6wks,male)

Radiant Efficiency

 $\left(\frac{\text{p/sec/cm}^2/\text{sr}}{\text{uw/cm}^2}\right)$  14000

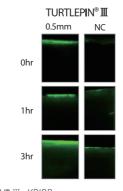
Sample: eGFP (2mg/ml) 100ul diffused.

"0.5mm shows higher FL intensity level (30x) and faster penetration speed (20x) in comparison to normal application (NC)." 1)



## Porcine skin

Sample: eGFP (2mg/ml) 200ul Group: NC(Normal application), 0.5mm



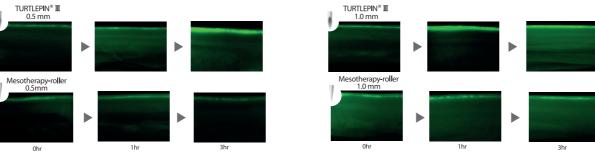
1) Korea Research Institute of Bioscience & Biotechnology (KRIBB , 2013), \*In Vivo & In Vitro - TURTLEPIN® Ⅲ, KRIBB

## **■ TURTLEPIN® III VS Mesotherapy-roller penetration rate comparison**

**Specimen** Porcine skin eGFP (2mg / ml) in PBS

Investigational substance TURTLEPIN® III 0.5mm, TURTLEPIN® III 1.0mm, mesotherapy-roller 0.5mm, mesotherapy-roller 1.0m

"The use of TURTLEPIN® III series (both 0.5mm & 1.0mm) significantly results in better penetration rates of eGFP than in the use of MTS − Roller. [...] Considering the greater convenience and reduced pain experienced in the use of TURTLEPIN® III, it may be more suitable for mesotherapy – ideal for both patients and professionals. "2)



2) Korea Research Institute of Bioscience & Biotechnology (KRIBB, 2015), Comparison study of TURTLEPIN® Ⅲ and mesotherapy-roller

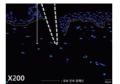
## ■ TURTLEPIN® II A direct trans-dermal injection test <sup>3)</sup>

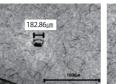
**Specimen** Reconstructed human full-thickness skin model Investigational substance TURTLEPIN® III 1.0mm











"According to analysis of epidermal and dermal layers by way of fluorescent staining (DAPI) and H&E staining after injection of TURTLEPIN® III to KeraSkin-FT, it confirmed that the TURTLEPIN® III 1.0mm reached the dermal layer through epidermal layer." <sup>3)</sup>

3) LEE Su-hyeon, D. Eng (2020), A direct trans-dermal injection test in a reconstructed human skin model with TURTLEPIN® III

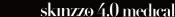


## This is not just a needle.

Superficial stimulator 0.5mm, 1.0mm Perpendicular injector 2.0mm, 3.0mm

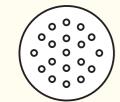






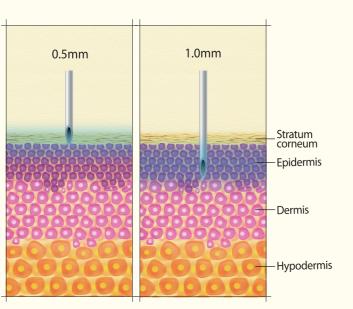
## **SUPERFICIAL STIMULATOR**







- >> Enhances the absorption rate of purposed drug by up to 30 times compared to topical application.
- Enhances the absorption rate of purposed drug by up to 15 times compared to the conventional MTS device using acupuncture needle.
- $\gg$  Equally positioned 19 needles facilitate equal diffusion of liquid drugs.
- ≫ 32G hypodermic needle requires no down-time.
- Due to a short recovery time and minimal pain, our stimulator procedure can be combined with a conventional injecting procedure on a bi-weekly basis.
- ≫ No anesthesia required.



■ Watch the tutorial video

## For stimulating/stamping procedure



- User-friendly ergonomic designEqual amount of diffusion (0.06cc / 1 stamp)
- · New technique for superficial stimulation
- · No regurgitation or leakage

**■ ®** TURTLEPIN **III** airless syringe

Luer-lock Compatible with all

types of syringe

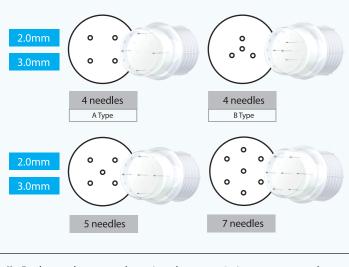
**LANCET 2x CUT** 

Reduced pain and risk of

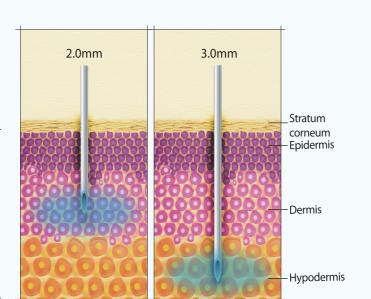
TURTLEPIN® III must be positioned at a perpendicular direction at all times during the procedure. The device shall not slip when attached to and detached from the skin.

900

## **PERPENDICULAR INJECTOR**



- > Reduces the procedure time by up to 3 times compared to a single needle procedure.
- > Perpendicular injection allows professionals to reach the target layer more easily and accurately.
- Different types of needle layout and length present various options for professionals depending on the procedure purposes.
- Can be used with fillers with high viscosity level which is equivalent to cross-linked HA.



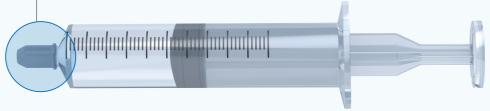
## · Compatible with international standard luer-lock syringe

32G hypodermic

Accurate penetration and direct delivery of drugs



For injecting procedure



Luer-lock & normal syringe



