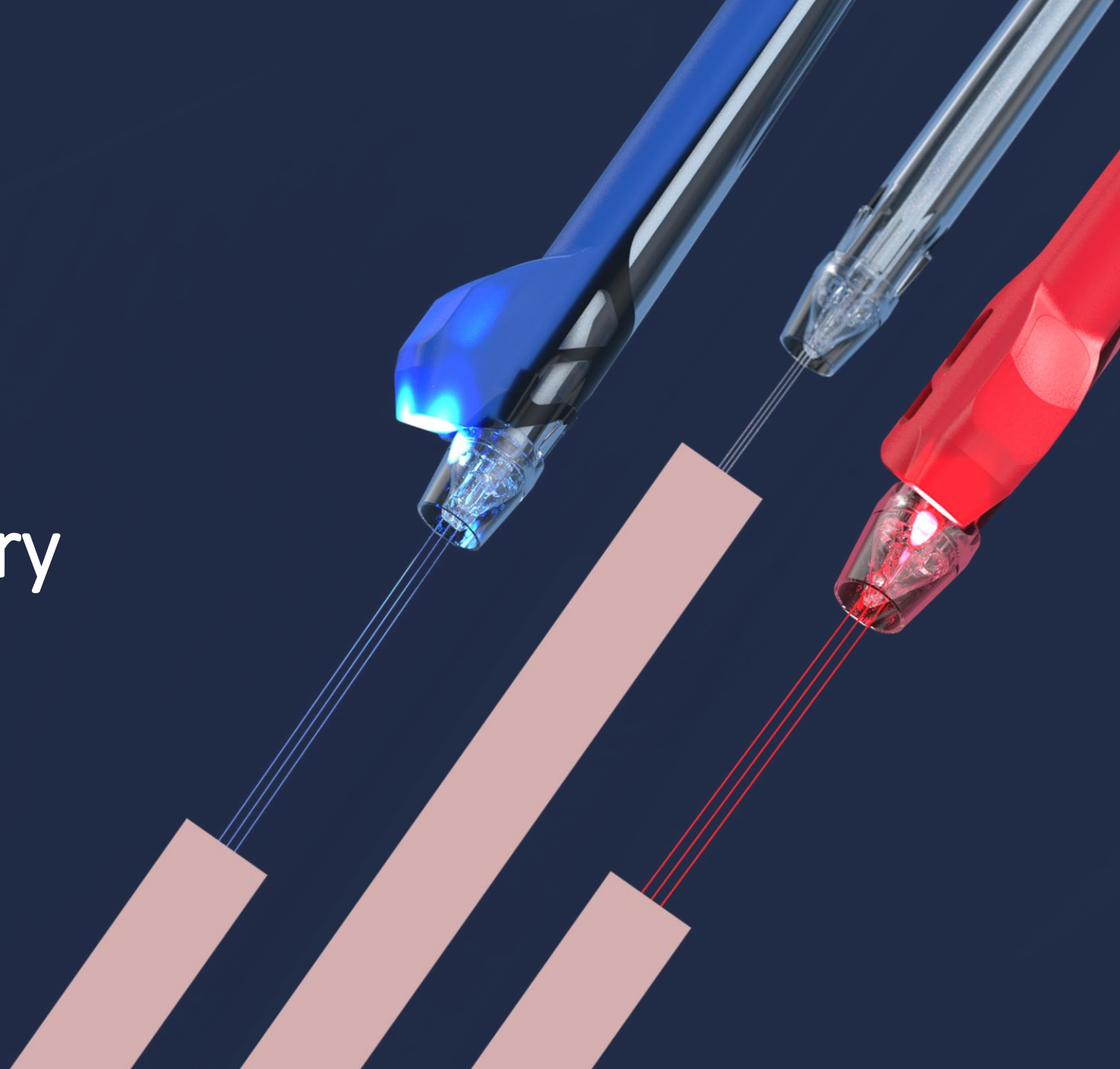




JetPeel by TavTech Publications Summary

2024



Indications

- 1. Anti-Aging**
- 2. Hyperhidrosis**
- 3. Melasma**
- 4. Scalp & Hair**

Table of Contents

1. Anti-Aging

- Evaluation of Changes in Skin Biophysical Parameters and Appearance after Pneumatic Injections of Non-Cross-Linked HA in the Face
- Short Review on Face Rejuvenation Procedures: Focus on Preoperative Antiseptic & Anesthetic Delivery by JetPeel
- The Increase of Interfollicular Epidermal Stem Cells and Regulation of Aryl Hydrocarbon Receptor and its Repressors in the Skin through Hydroporation with Anti-Aging Cocktail
- Epidermal & Histological Characteristics in Response to Hydroporation
- Significant Improvement in Crows Feet after Treatment with JetPeel

Table of Contents

2. Hyperhidrosis

- Painless & Effective Transdermal Botulinum Toxin A Delivery by JetPeel for Primary Hyperhidrosis

3. Melasma

- The Effects of Hydroporation on Melasma with Anti-Aging Cocktail
- Comparing Efficacy of JetPeel Assisted Tranexamic Acid and Vitamin C in Treating Melasma: A Split-Face Controlled Trial

Table of Contents

4. Scalp & Hair

- Hair Loss Treatment using Erbium:YAG Fractional Laser with Hair Growth-promoting Solution Delivered by JetPeel
- Transdermal Delivery of a New Hair Growth-promoting Solution in Patients with Hair Loss
- A Novel Needleless Delivery System for Scalp Platelet-Rich Plasma
- The Clinical Effect of JetPeel Assisted Topical Minoxidil in the Treatment of Androgenetic Alopecia: A Randomized Pilot Study

Appendix

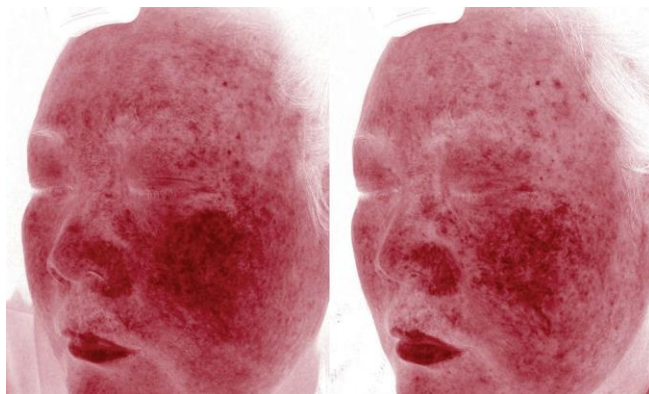
1. Anti-Aging

Evaluation of Changes in Skin Biophysical Parameters and Appearance after Pneumatic Injections of Non-Cross-Linked HA in the Face

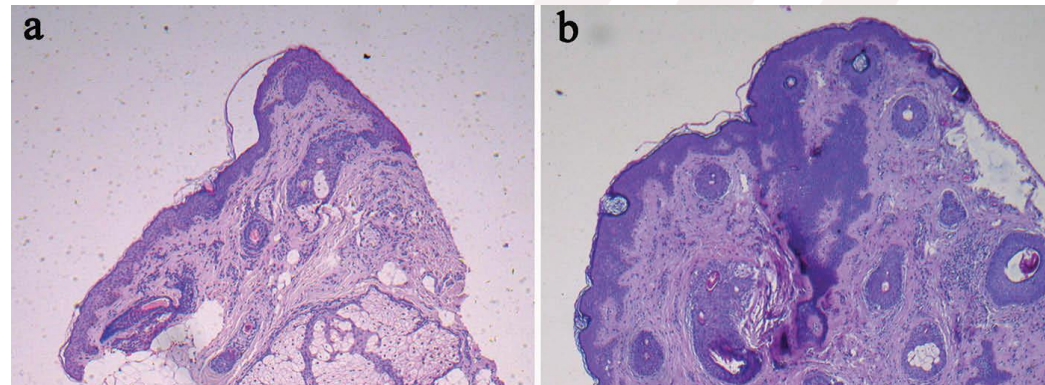
Hai-yan Cheng, Yu-xin Chen, Mei-fang Wang, Jun-ying Zhao, Lin-feng Li

[Full Article Here](#)

- Twenty eight healthy female patients were treated with non-cross-linked HA into the face delivered by JetPeel for five consecutive weeks
- Results:
 - TEWL was significantly lower in week 4 than in baseline (18.47 vs. 22.03 g/h/m², $p < 0.05$)
 - Skin texture was better in week 4 than in baseline (599 vs. 668, $p < 0.05$)
 - Skin pores improved significantly at week 4 vs. baseline (934 vs. 1024, $p < 0.05$)
 - Skin wrinkles improved at 3 month follow-up vs. baseline (29 vs. 36, $p < 0.05$)



Improvement in skin redness after 5 treatments



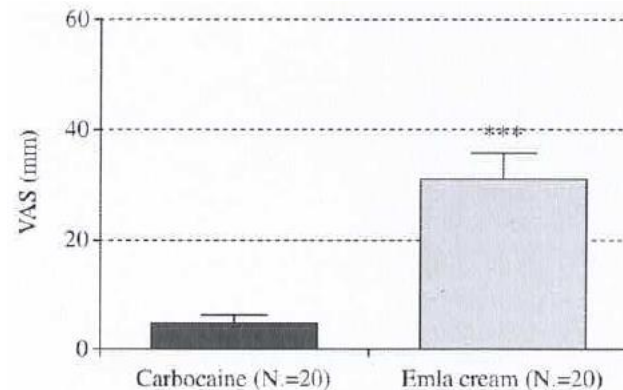
Before (a) and after (b) X 40 skin biopsy with hematoxylin-eosin stain

Short Review on Face Rejuvenation Procedures: Focus on Preoperative Antiseptic & Anesthetic Delivery by JetPeel

T. Iannitti, S. Capone, B. Palmiera

[Full Article Here](#)

- The anesthetic power of JetPeel was tested on 40 adult volunteers by comparing Emla cream (n=20) to 3-carbocaine delivered by JetPeel together with chlorhexidine for sterilization and disinfection (n=20).
- **Results:**
 - The spontaneous pain sensation perceived by the patients in the JetPeel treated hemiface was significantly lower compared to the Emla cream treated hemiface ($p < .0001$) in a short time
 - The results point to JetPeel as being a good non-invasive approach which induces local anesthesia



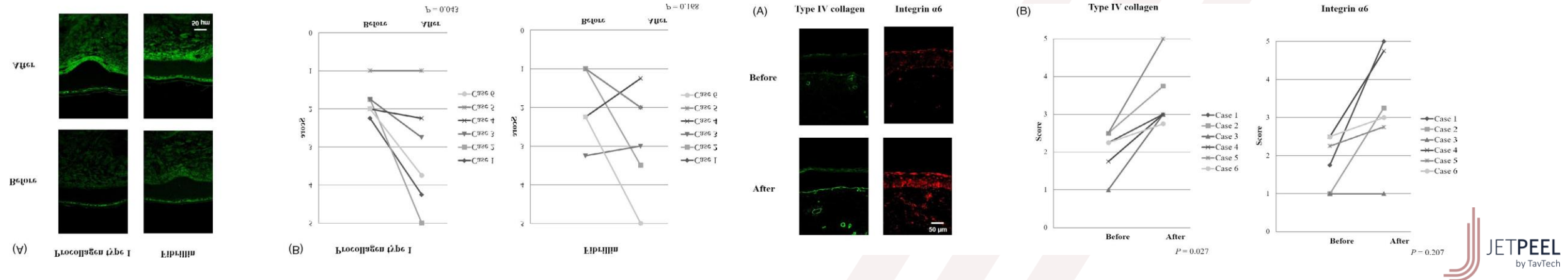
JetPeel carbocaine protocol vs. Emla cream. Degree of pain measured by means of Scott-Huskisson VAS (mean \pm SE, mm)

The Increase of Interfollicular Epidermal Stem Cells and Regulation of Aryl Hydrocarbon Receptor and its Repressors in the skin through Hydroporation with Anti-Aging Cocktail

Jung-Won Shin MD, PhD, Hye-Ryung Choi PhD, Seung-Hye Yang MS, Ji-Young Choi MD, Jung-Im Na MD PhD

[Full Article Here](#)

- Skin samples from 6 volunteers were treated with JetPeel hydroporation using GHR formulation once a week for 8 weeks
- **Results:**
 - Markers for dermal matrix (procollagen type 1 and fibrillin-1) and basement membrane (type IV collagen and integrin $\alpha 6$) increased after treatment
 - There was a significant increase of histone deacetylase 1-positive/p63-negative basal cells previously reported as interfollicular epidermal stem cells
 - AhR decreased significantly while AhRR increased significantly indicating protection of the skin from the harmful environment

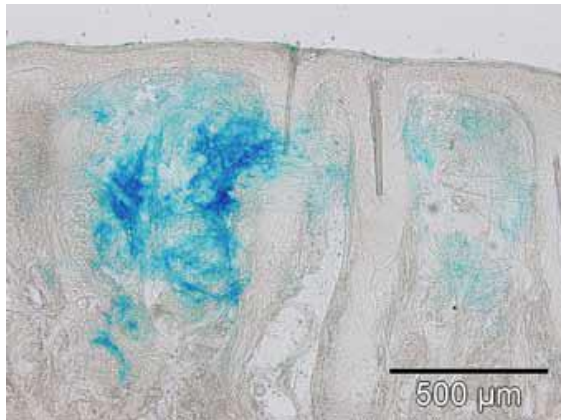


Epidermal & Histological Characteristics in Response to Hydroporation

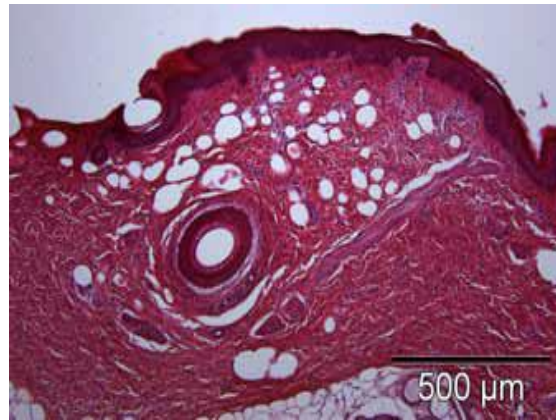
Prof. Uwe Paasch MD, PhD, University of Leipzig

[Full Article Here](#)

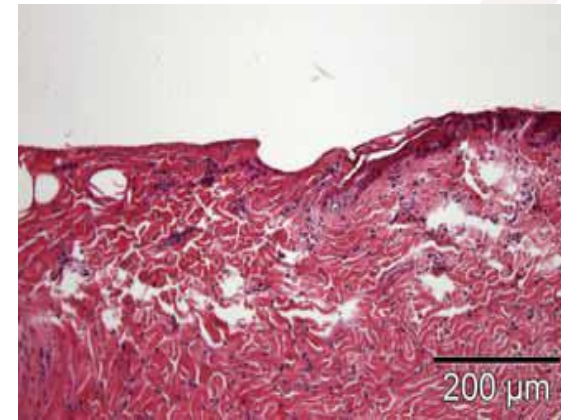
- Skin explants were subjected to JetPeel hydroporation for 10 s, 30 s, and 1 min.
- **Results:**
 - JetPeel hydroporation shows effective deposition of low molecular weight particles in a homogenous distribution up to a dermal depth of 1436 μm



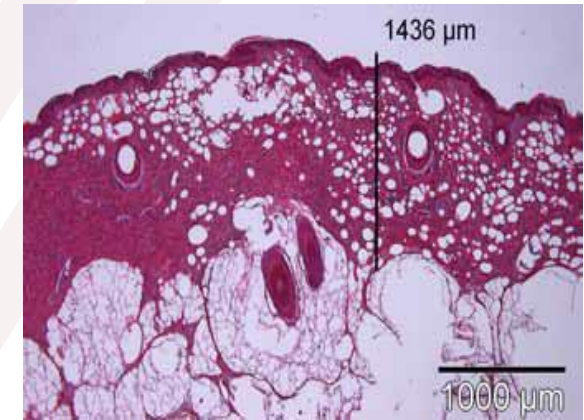
Homogenous distribution in the skin up to depth of 1024 μm



Vacuole formation, removal of stratum corneum and circumscribed epidermal loss, localized separation of dermal fibre bundles



Complete loss of the epidermis, dermal vacuole formation, localized separation of dermal fibre bundles



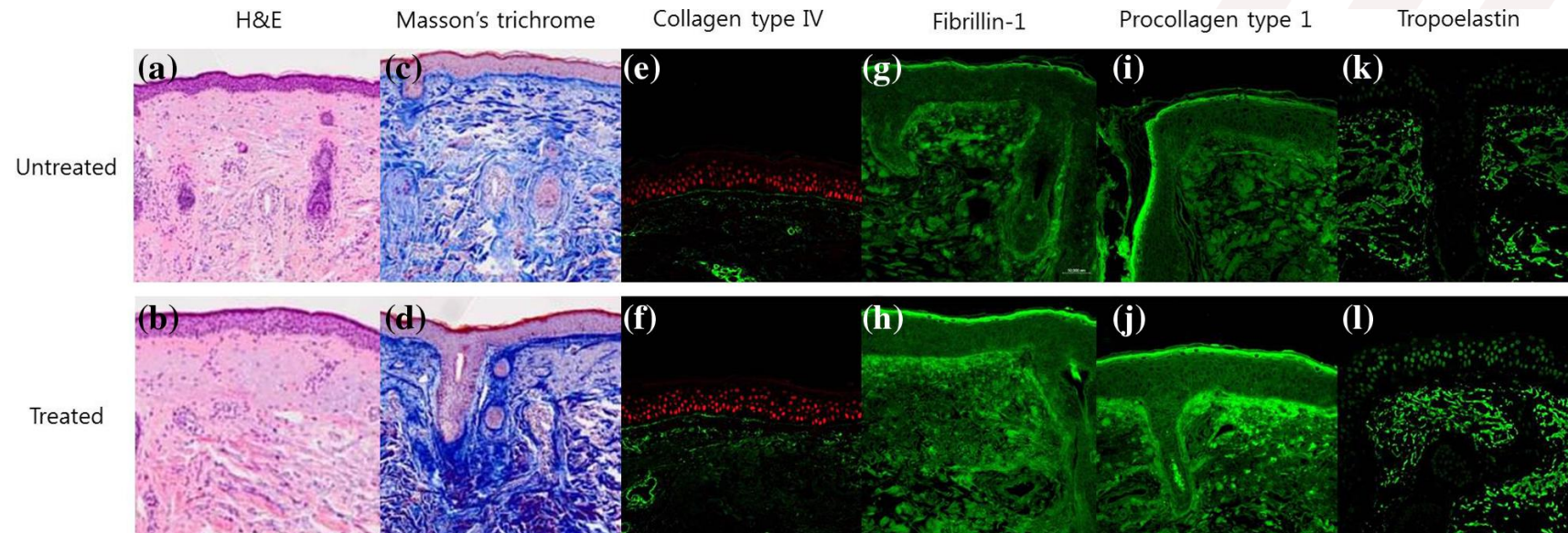
Uniform vacuole formation, spreading of dermal fibres within the full depth of the dermis up to 1436 μm

Significant Improvement in Crow's Feet after Treatment with JetPeel

Sang-Young Byun MD, Je-Byeong Chae MD, Jung-Im Na MD, Kyoung-Chan Park MD PhD

[Full Article Here](#)

- Crow's feet case study: 59 year old male was treated once a week for 12 weeks with JetPeel and GHR formulation on one side of face ("treated") and with Jetpeel and normal saline on other side ("untreated")
- Results:
 - Treated side shows significant improvement in crow's feet
 - Upper dermis: Significant collagen production, increased expressions of fibrillin, procollagen and tropoelastin



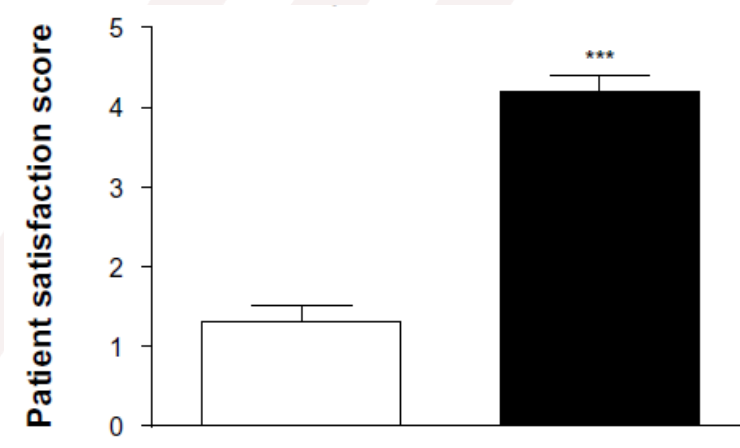
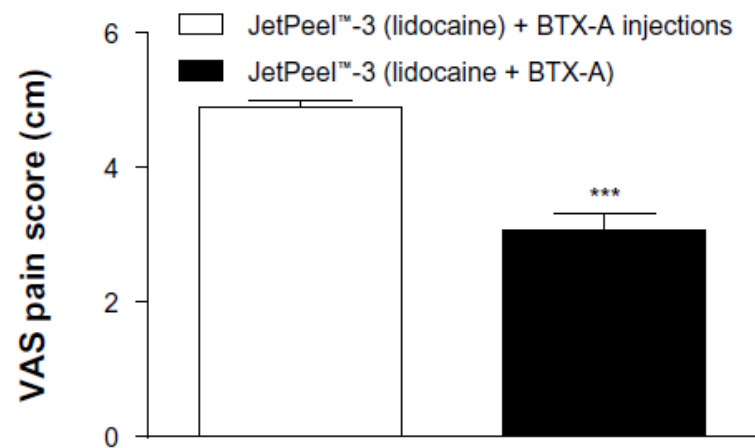
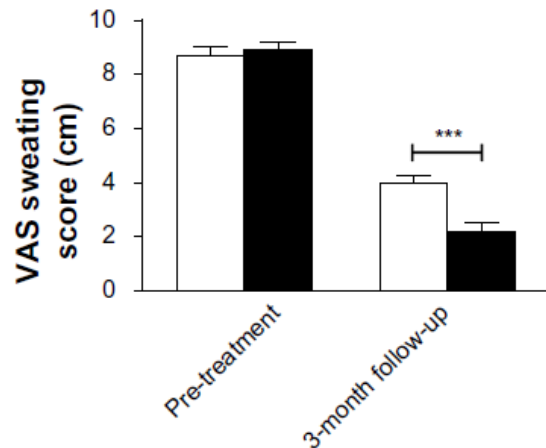
2. Hyperhidrosis

Painless & Effective Transdermal Botulinum Toxin A Delivery by JetPeel for Primary Hyperhidrosis

T. Iannitti, B. Palmieri, A. Aspiro, A. Di Cerbo

[Full Article Here](#)

- 20 patients with VAS sweating score > 8 cm were randomized to receive lidocaine 2% delivered by JetPeel followed by multiple injections of BTX-A, or with lidocaine 2% and BTX-A both delivered by JetPeel
- **Results:**
 - Both treatment modalities reduced sweating at 3 month follow up, while delivery of both lidocaine and BTX-A by JetPeel resulted in lower sweating than treatment with BTX-A injections
 - Delivery of both lidocaine and BTX-A by JetPeel resulted in lower procedure related pain
 - Patient satisfaction was higher in group receiving both lidocaine and BTX-A with JetPeel



3. Melasma

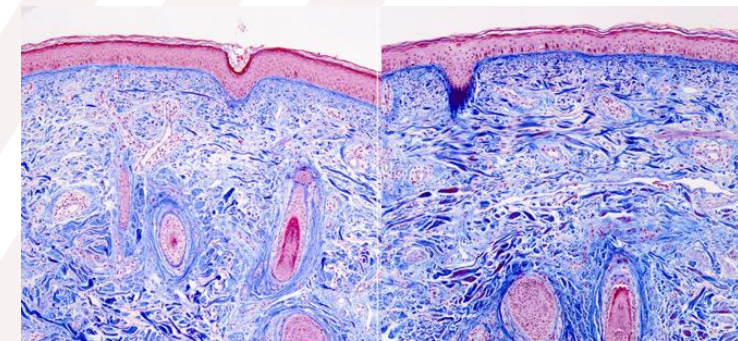
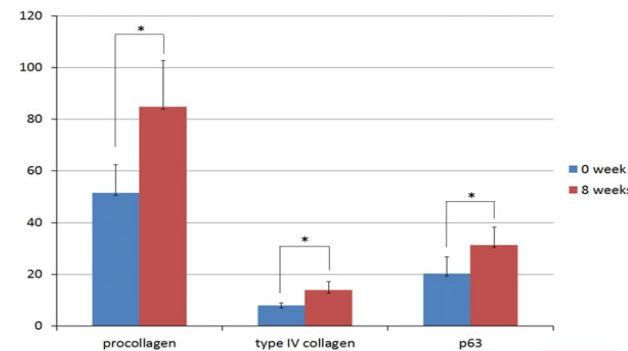


The Effects of Hydroporation on Melasma with Anti-Aging Cocktail

Je Byeong Chae MD, Seung Hye Yang MS, Sang Young Byun MD, Hye-Ryung Choi PhD, Jung-Won Shin MD, Kyoung-Chan Park MD PhD.

[Full Article Here](#)

- 6 volunteers with melasma were treated with JetPeel and a GHR formulation once a week for 8 weeks
- **Results:**
 - Pigmentation and erythema were relieved
 - MI and EI decreased
 - Histopathologic observations shows type IV collagen and procollagen increase in upper dermis
 - There is an increase in p63-positive cells along the basement membrane
 - Findings suggest that JetPeel hydroporation with GHR formulation induces anti-aging effects by reconstruction of extracellular matrix

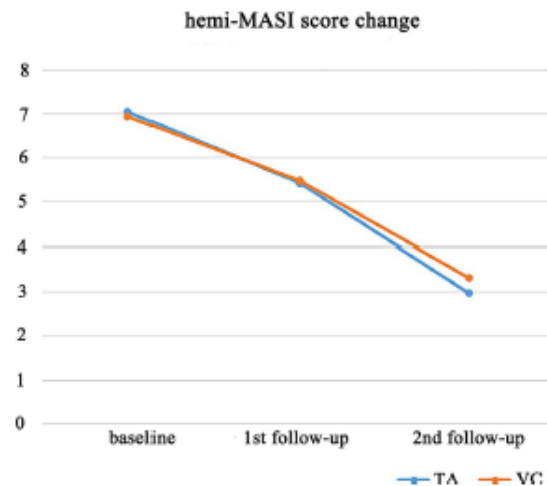


Comparing Efficacy of JetPeel Assisted Tranexamic Acid and Vitamin C in Treating Melasma: A Split-Face Controlled Trial

Huijuan Zhao MD, Mengna Li MD, Xiaofeng Zhang MD, Li Li MD, Yan Yan MD, Baoxi Wang MD

[Full Article Here](#)

- Controlled trial with 17 patients who were randomized to receive 8 weekly JetPeel split face treatments, one side with tranexamic acid (TA) and other side with Vitamin C (VC)
- Results:
 - A reduction in MASI was observed for TA and VC separately ($p < 0.05$)
 - The difference between TA and VC was not statistically significant
 - Both treatments were well tolerated



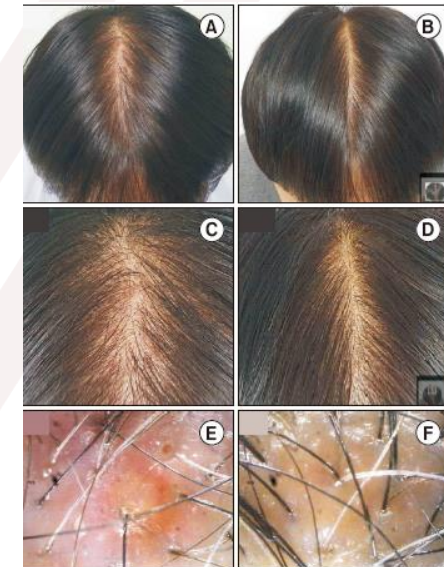
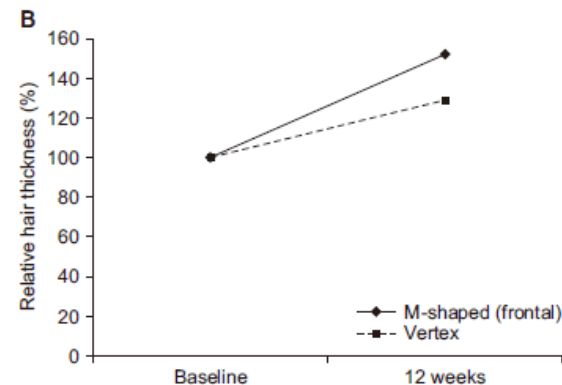
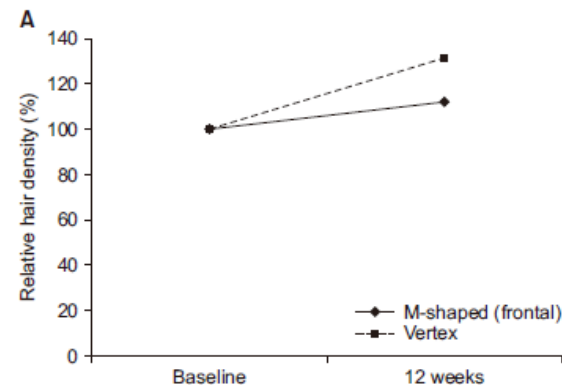
4. Scalp & Hair

Hair Loss Treatment using Erbium:YAG Fractional Laser with Hair Growth-promoting Solution Delivered by JetPeel

Dong Hyun Ahn

[Full Article Here](#)

- A case study showing a Laser – JetPeel combination treatment on a 48 year old male patient with frontal M-shaped, mid and vertex hair loss
- JetPeel was used to apply a hair growth promoting agent immediately following each weekly Erbium:YAG fractional laser treatment over a 3 month period
- **Results:**
 - Hair density increased by 11-31% (depending on place)
 - Hair thickness increased by 51-27% d(dependent on place)

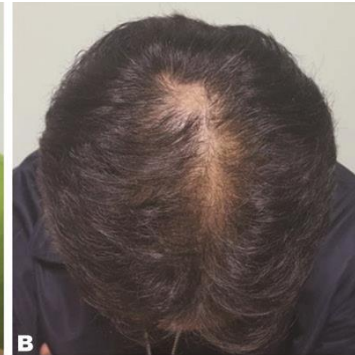


Transdermal Delivery of a New Hair Growth-promoting Solution in Patients with Hair Loss

Dong Hyun Ahn, Insoo Kang

[Full Article Here](#)

- A retrospective case series including 6 Korean patients (5 male, 1 female) with alopecia who were treated once a week for 3 months with a hair growth-promoting solution delivered by JetPeel
- **Results:**
 - All patients demonstrated considerable improvement in both hair counts and hair thickness compared to baseline values at one week after final treatment session.
 - No patient reported pain
 - No side effects were reported



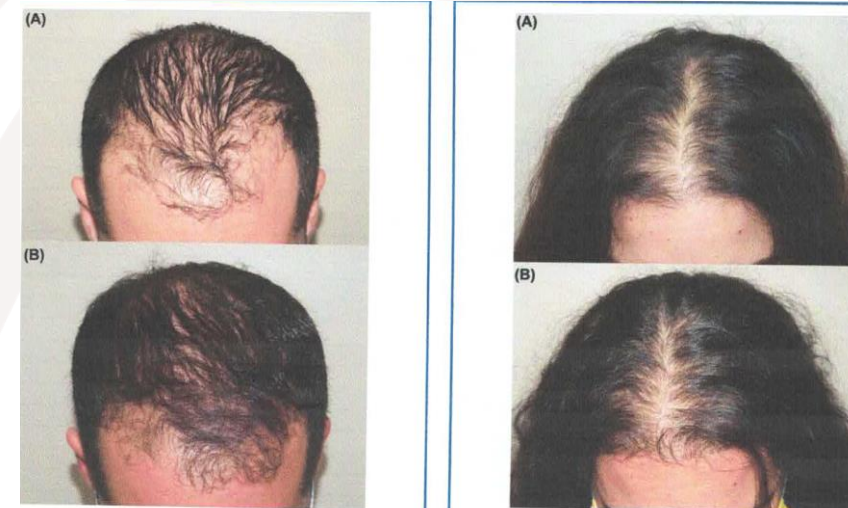
A Novel Needleless Delivery System for Scalp Platelet-Rich Plasma

Gary Linkov MD, Kumar Sukhdeo PhD, Elizabeth Grand MD

[Full Article Here](#)

- Prospective evaluation of efficacy and usability of JetPeel for scalp PRP in patients with androgenic alopecia
- 5 female and 9 male patients with androgenic alopecia underwent 3 JetPeel sessions with PRP
- **Results:**
 - 12 of the 14 patients showed improvements in overall hair restoration based on Jaeschke scale (average score 2.2)
 - 13 of the 14 patients said that they would recommend this treatment to others
 - Pain was reported as 0%

Before and 6 months after 3 consecutive sessions with JetPeel delivered PRP



The Clinical Effect of JetPeel Assisted Topical Minoxidil in the Treatment of Androgenetic Alopecia: A Randomized Pilot Study

Lin Gong, Linlin Bao, Tian Tian, Yuanhong Li

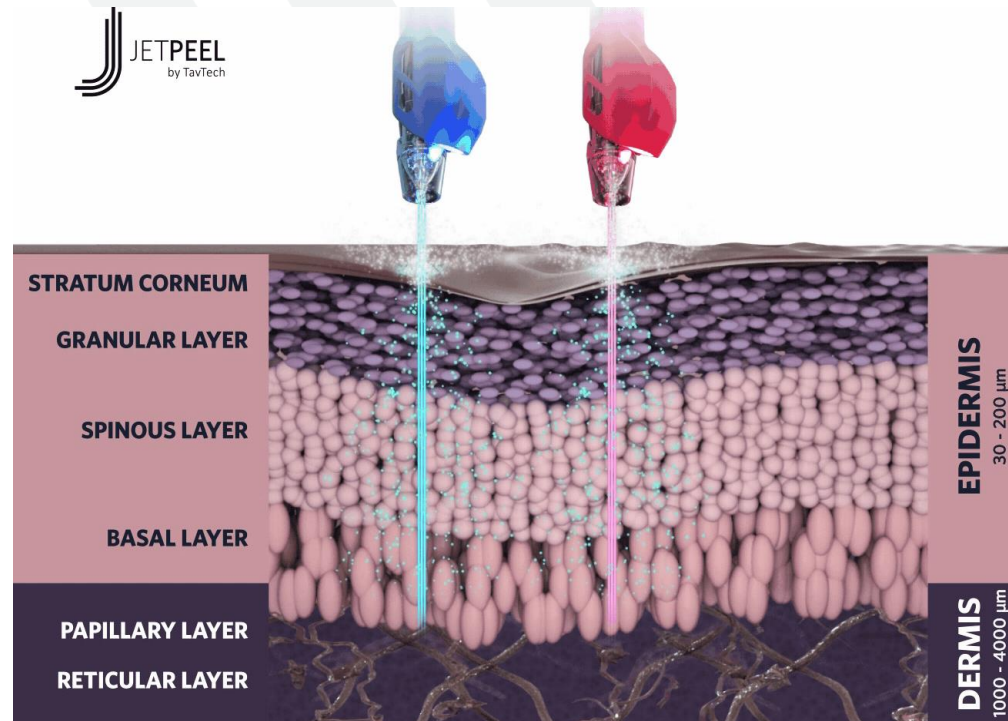
[Full Article Here](#)

- 30 male patients with AGA were randomly divided into 3 groups of 10:
 - Group 1: Treated with JetPeel delivering 5% minoxidil once a week plus topical self-application of 5% minoxidil twice daily
 - Group 2: Only topical self-application of 5% minoxidil twice daily
 - Group 3: no treatment
 - The study lasted 3 months
- **Results:**
 - The increase in hair amount and hair diameter in Groups 1 and 2 were statistically significant ($p < 0.05$), with no significant difference in Group 3
 - The difference between Group 1 and Group 2, and Group 1 and Group 3 after 2 and after 3 months were significant ($p < 0.05$)



Appendix

JetPeel by TavTech



Unique patented technology using jet pressure energy enabling aesthetic practitioners to perform rejuvenation treatments starting with a lymphatic massage to remove waste and toxins, followed by gentle exfoliation and effective infusion of skin-renewal and anti-aging solutions into the dermis. The treatment is pleasurable, non-invasive, safe, needle-free, pain-free and non-contact for aesthetic enhancement, with zero-downtime and immediate results.

Pressure-Energy: The power behind JetPeel

1

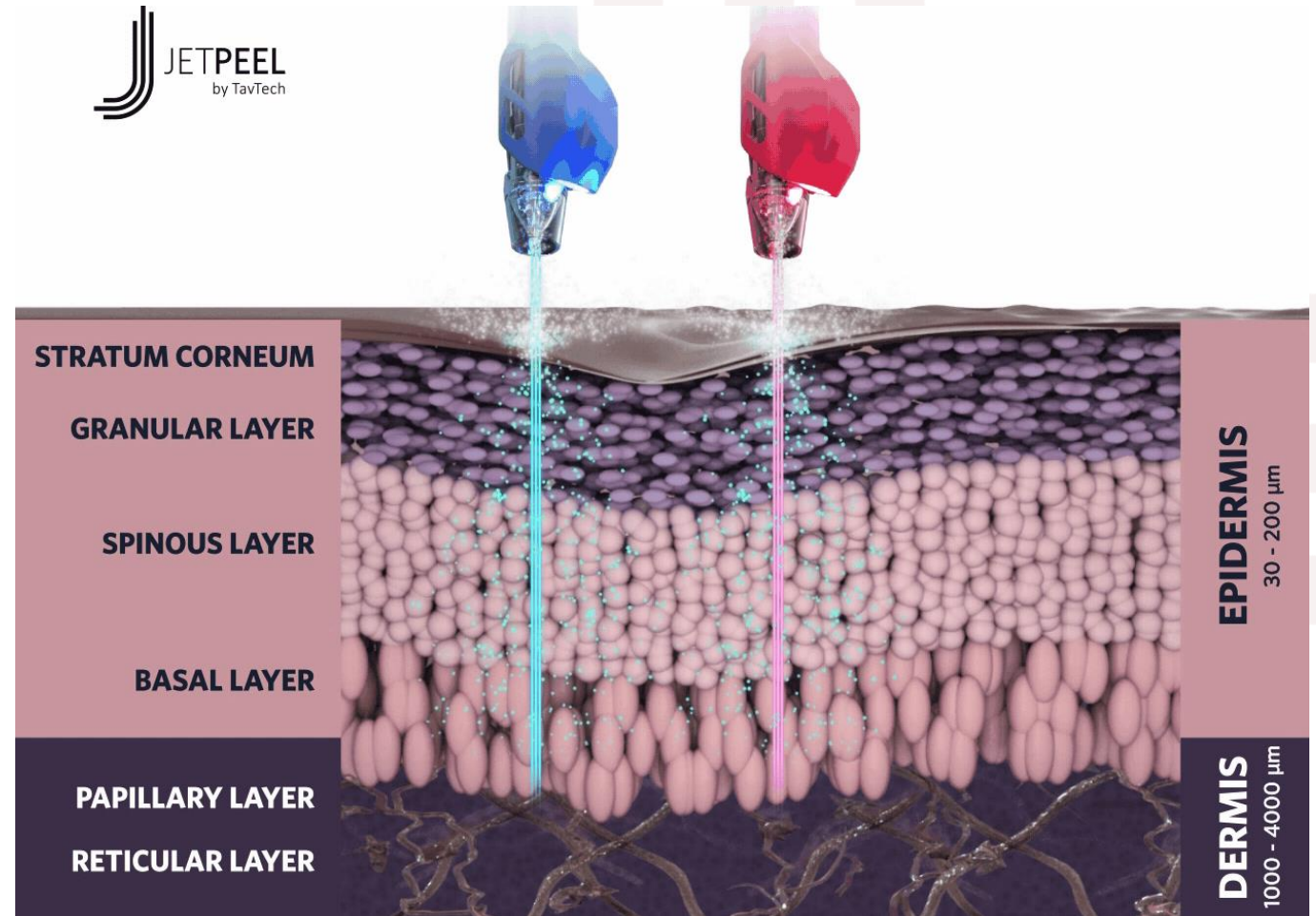
Pressurized air is generated at 95psi (6.5 bar)

2

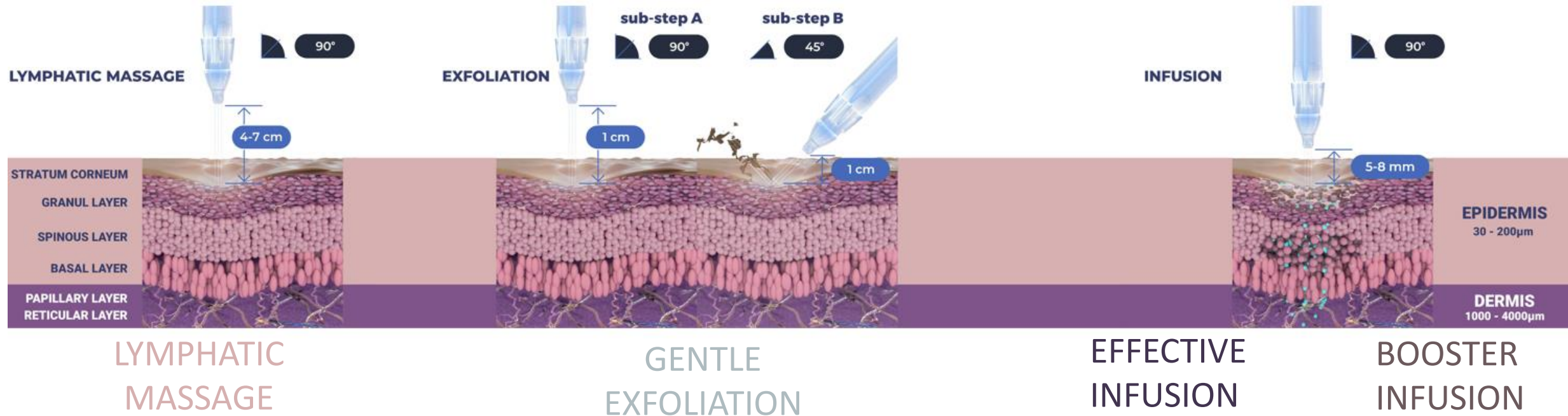
High pressure is manipulated to accelerate liquid and form a misty jet with speed of 200 mt/sec

3

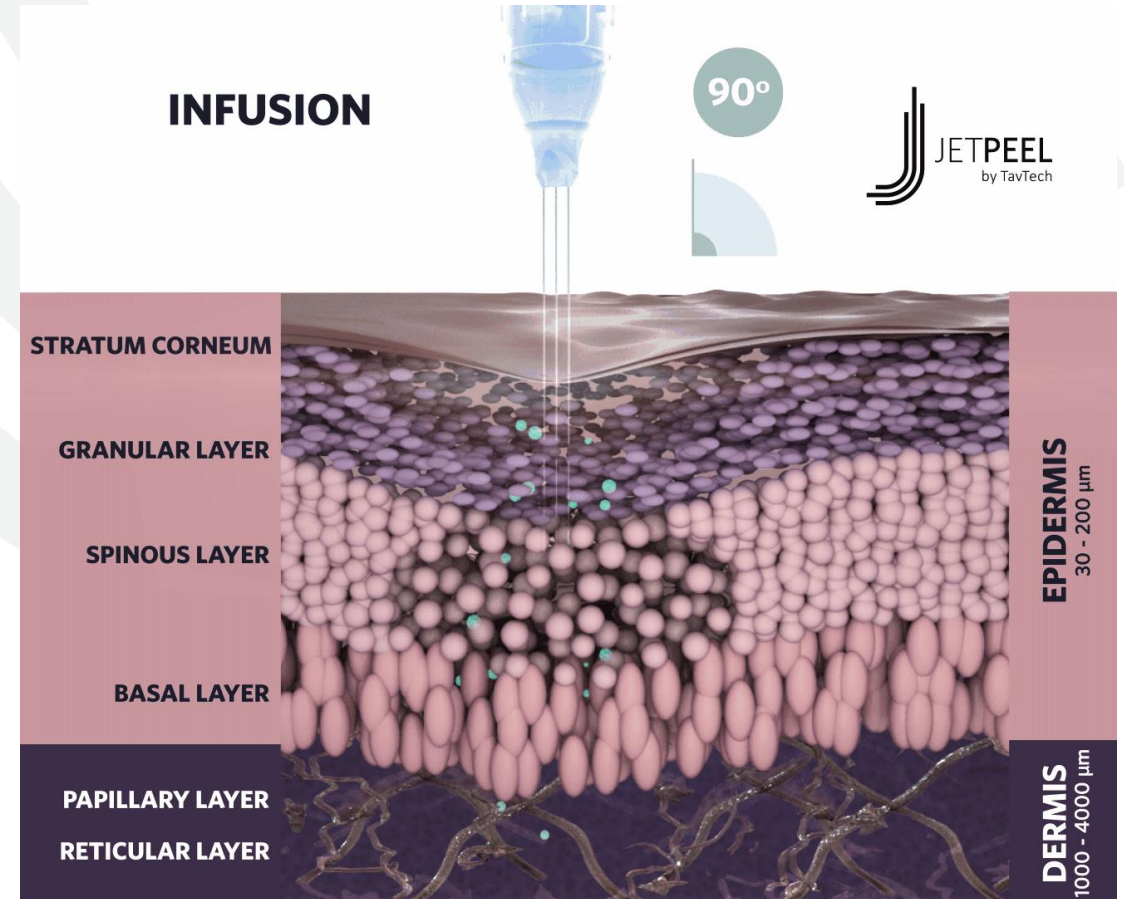
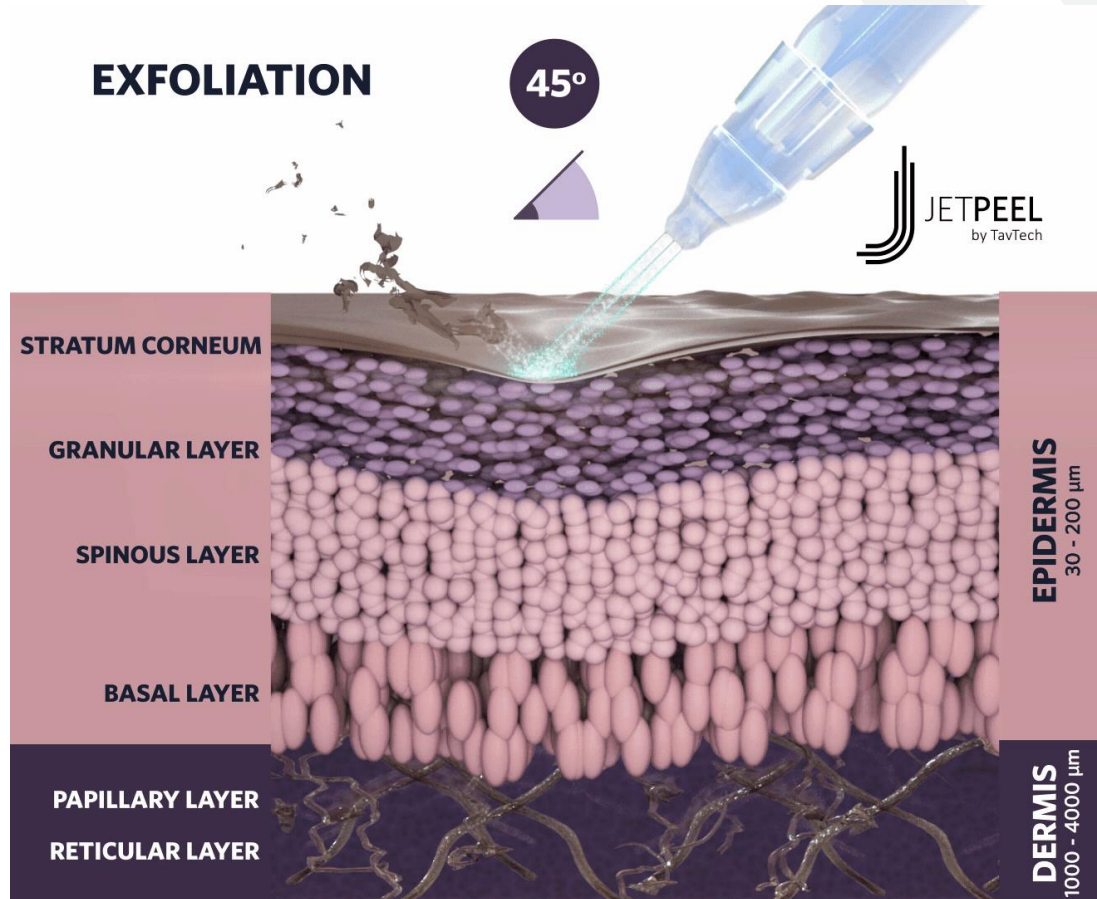
A concave region stretching the skin opens transdermal microchannels allowing the enriched liquid to penetrate deeper and deliver nutrients and treatment solutions



The Versatility of JetPeel



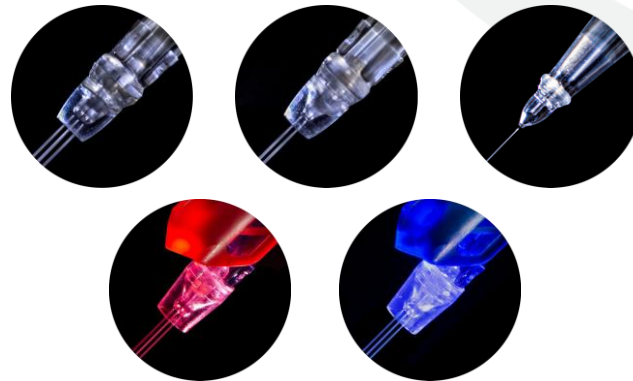
The Versatility of JetPeel



JetPeel by TavTech – the Perfect Trio

- The enduring JetPro devices
- The original patented JetPeel handpieces
- premium JetCare solutions

designed exclusively for use together to deliver outstanding results





Thank You

