

exo booster

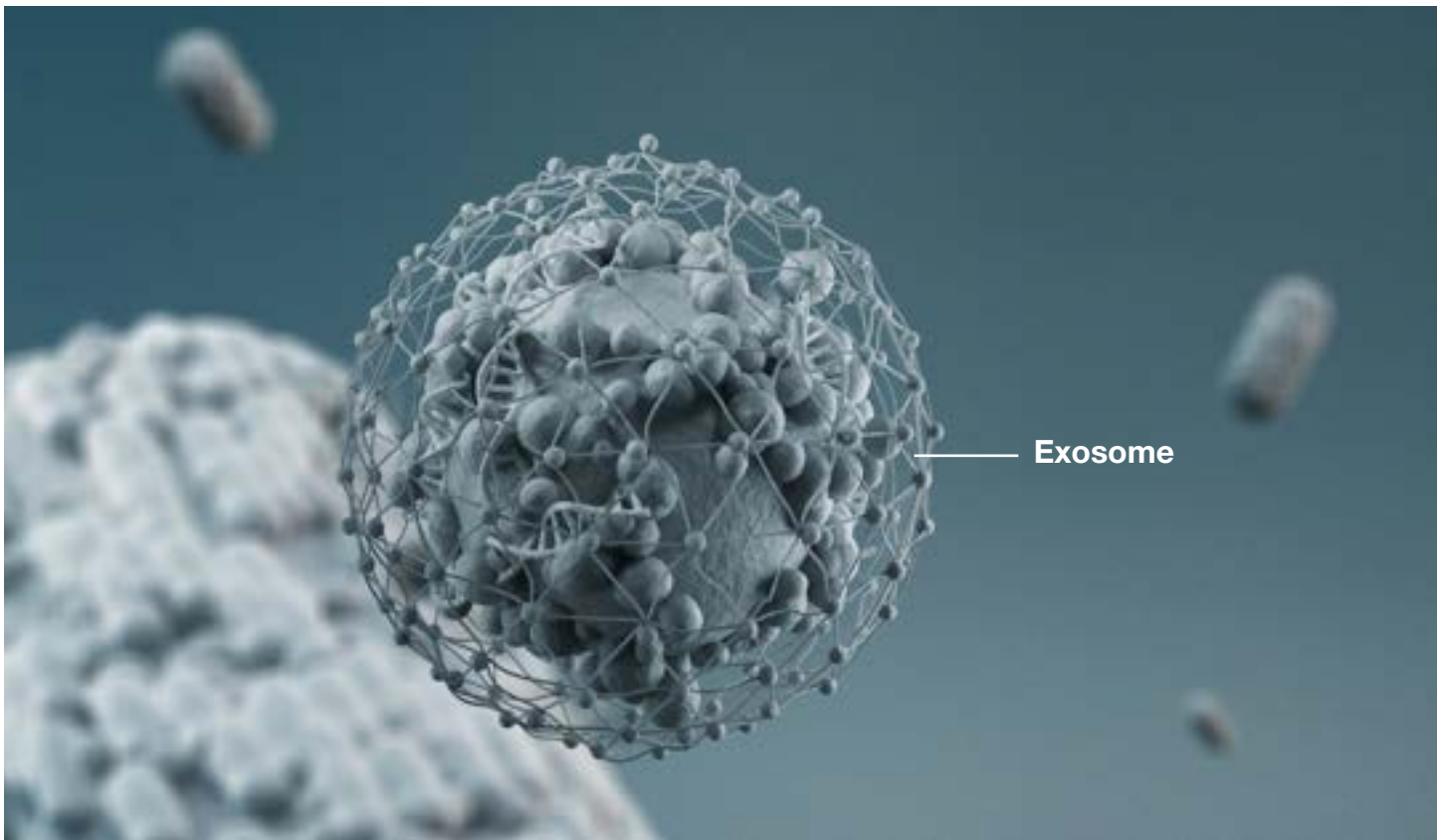
10 billion lactobacillus exosomes



dermalogica PRO

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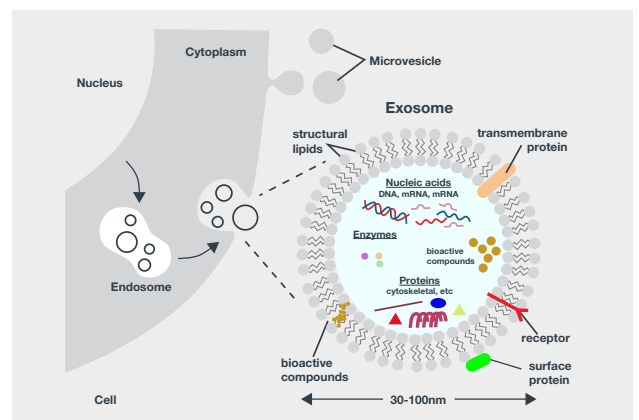
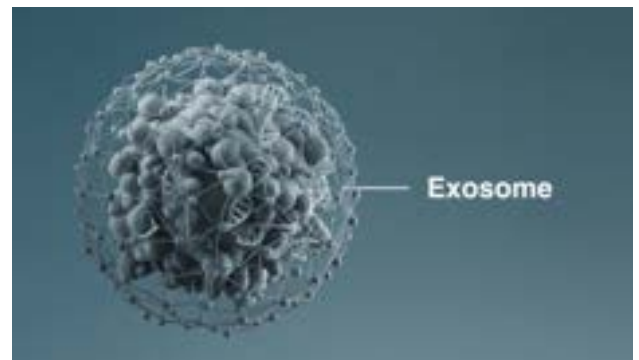
the science behind exosomes

what are exosomes?

Exosomes are small vesicles derived from stem cells that serve as cellular messengers. They penetrate the skin to activate various cell functions, making them promising in cosmetics, skincare, tissue regeneration, and dermatological treatments. Exosomes enhance the cellular environment by regulating genes and guiding cell behavior, ultimately benefiting skin health. They can also help reduce the appearance of inflammation, making them an effective option for post-treatment recovery.

Exosomes are natural lipid vesicles packed with bioactive molecules like nucleic acids (DNA, RNA), proteins, and lipids. These extracellular vesicles, about 30-500 nm in diameter, are formed in the endosomes and naturally secreted by cells in response to specific stimuli. They deliver functional substances from donor cells to recipient cells, reprogramming them through this transfer.

In cosmetics, exosomes act as key cellular communicators, stimulating physiological processes that mimic natural intercellular communication for enhanced skin health and regeneration.



Théry, C., Ostrowski, M., & Segura, E. (2002). Membrane vesicles as conveyors of immune responses. *Nature Reviews Immunology*, 9(8), 581-593. doi:10.1038/nri2567

Yáñez-Mó, M., Siljander, P. R., Andreu, Z., Zavec, A. B., Borrás, F. E., Buzas, E. I., ... & Llorente, A. (2015). Biological properties of extracellular vesicles and their physiological functions. *Journal of Extracellular Vesicles*, 4(1), 27066. doi:10.3402/jev.v4.27066

Zhang, B., Yin, Y., Lai, R. C., Tan, S. S., Choo, A. B., & Lim, S. K. (2015). Mesenchymal stem cell exosomes enhance angiogenesis and promote recovery from ischemic injury. *Cell Cycle*, 14(8), 1205-1213. doi:10.1080/15384101.2015.1005595

Raposo, G., & Stoorvogel, W. (2013). Extracellular vesicles: exosomes, microvesicles, and friends. *The Journal of Cell Biology*, 200(4), 373-383. doi:10.1083/jcb.201211138

how do they work?

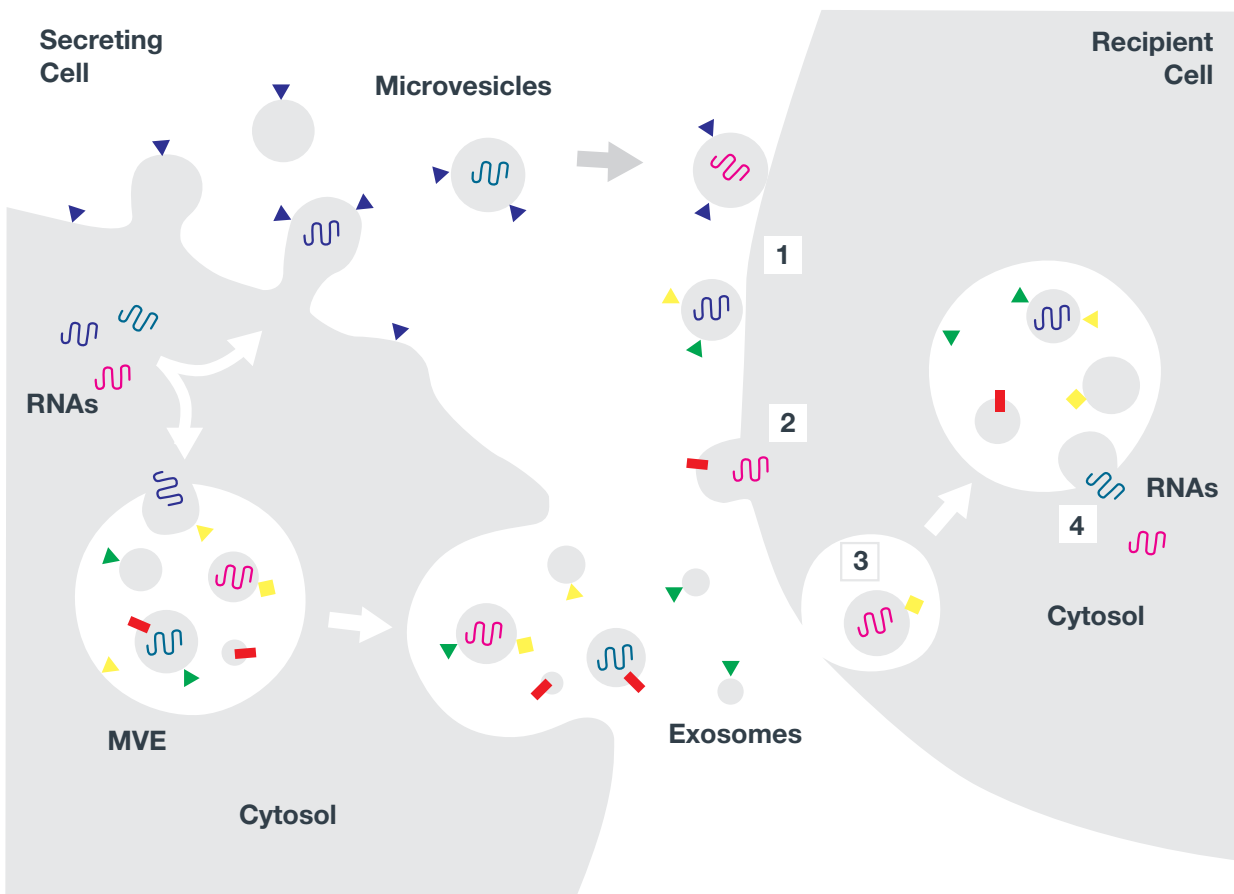
Multivesicular endosome (MVE) - a type of cellular vesicle - produce and carry Exosomes



Endosomes fuses with cell membranes and releases Exosomes inside the cells



Exosomes transfer their biological content, the signaling bio-molecules, to the cells influencing their behavior and function (cellular communication)



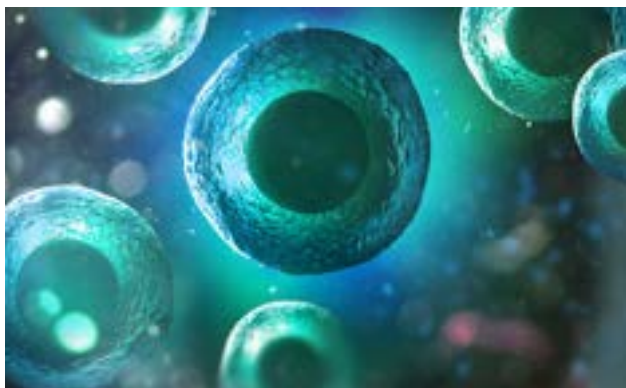
Exosomes can activate different cells and stimulate their biological process such as:

- Fibroblasts migration, proliferation and collagen production
- Tyrosinase, melanin and oxidative stress reduction

As a result, it can actively participate on cellular regeneration, wound healing, inflammation and oxidative stress reduction and promote remarkable skin rejuvenation.

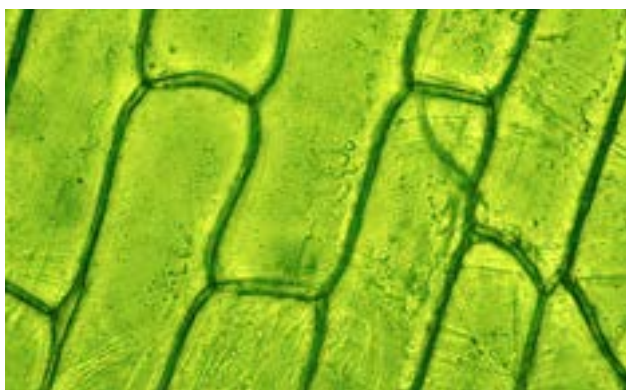
types of exosomes

There are currently three main types of exosomes, though new types continue to be discovered.



human exosomes

Derived from human stem cells, these exosomes contain a rich profile of growth factors and proteins that closely mimic human cellular processes, making them highly effective for targeted skin regeneration and repair.



plant exosomes

Naturally abundant in antioxidants and phytonutrients, plant exosomes are prized for their gentle bioactive compounds, which support skin hydration, protection, and soothing effects, ideal for sensitive or inflamed skin.



bacterial exosomes

The newest and most exciting discovery, bacterial exosomes show promising results for skin health. They contain unique metabolites that support microbiome balance, fortify the skin barrier, and enhance skin resilience, offering innovative solutions for skin defense and vitality.

the potential of bacterial exosomes from lactobacillus bacteria

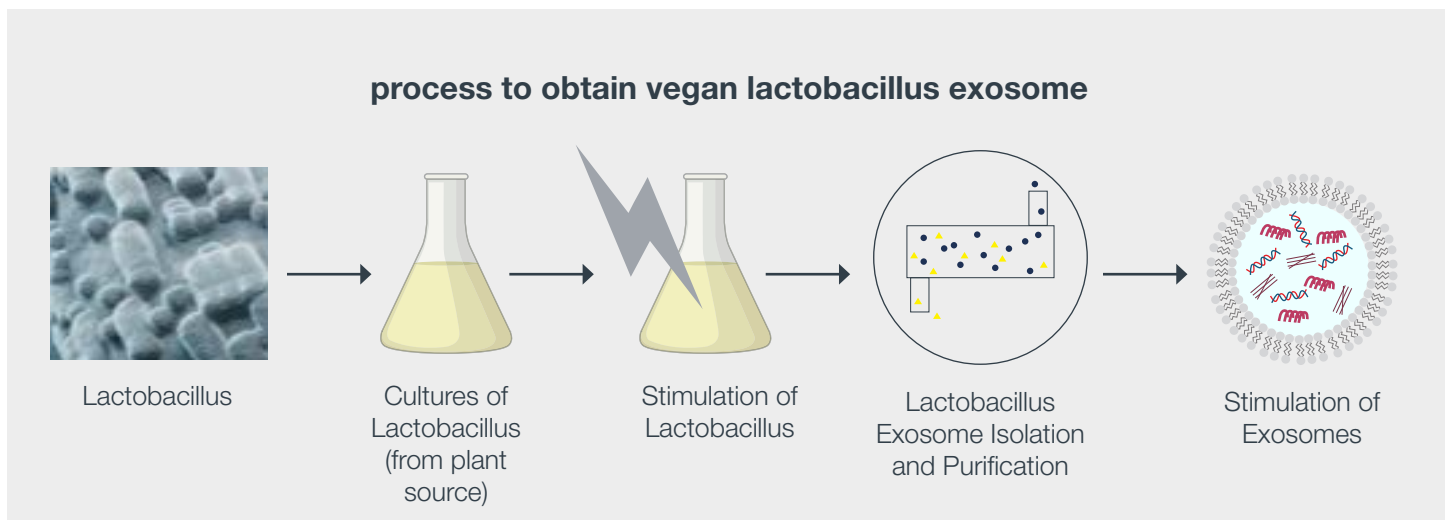
The composition of bacterial exosomes, including those from *Lactobacillus*, can differ from other exosomes due to their unique endoplasmic reticulum contents and membrane proteins within the lipid bilayer. These distinctive membrane proteins can impact how exosomes interact with skin cells and the skin's microbiome.

Lactobacillus exosomes have shown potential in supporting skin barrier function and rejuvenation, as they carry bioactive molecules that help reinforce skin health and resilience, aligning with the benefits observed in skin microbiome research.

Since *Lactobacillus* exosomes originate from a bacterial source familiar to the skin's microbiome, they may interact more naturally with the skin, potentially easing their integration and effectiveness by reducing resistance typically encountered by foreign compounds. This characteristic could enhance their ability to support skin health more effectively.

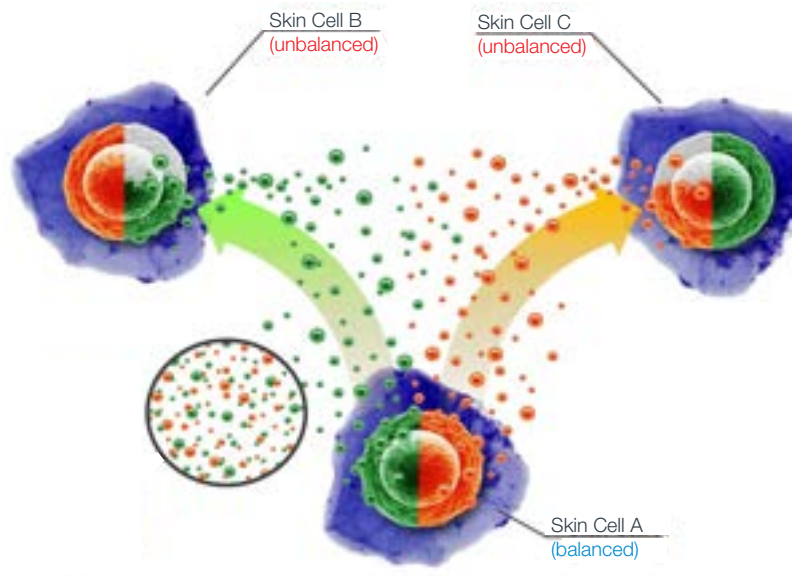


how are lactobacillus exosomes produced?



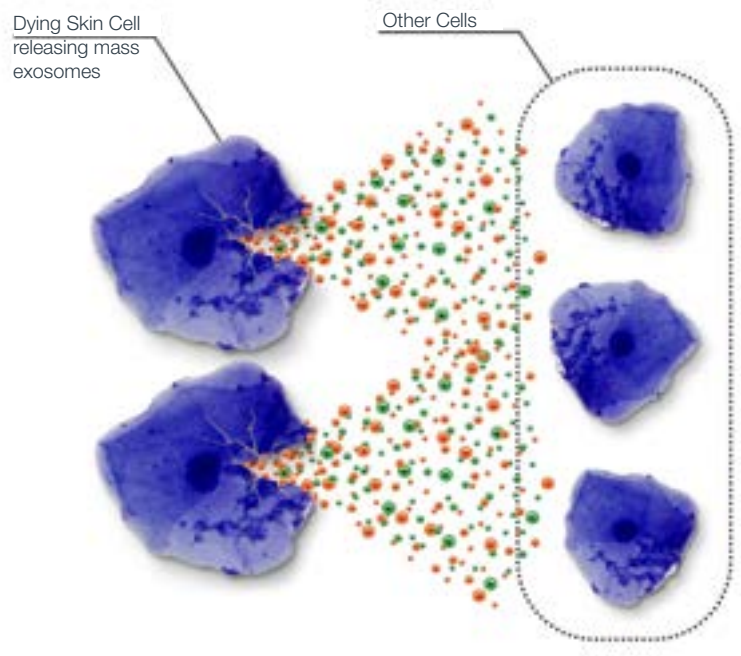
the discovery of “exosome trading” for cell regeneration

Cells release various types of exosomes. Unhealthy skin cells, like types B and C, can contribute to irritation due to imbalances. These cells absorb exosomes to regain equilibrium, promoting better skin health. This exchange works like a “trade” between cells, and applying a concentrated amount of exosomes to the skin may amplify this balancing effect.

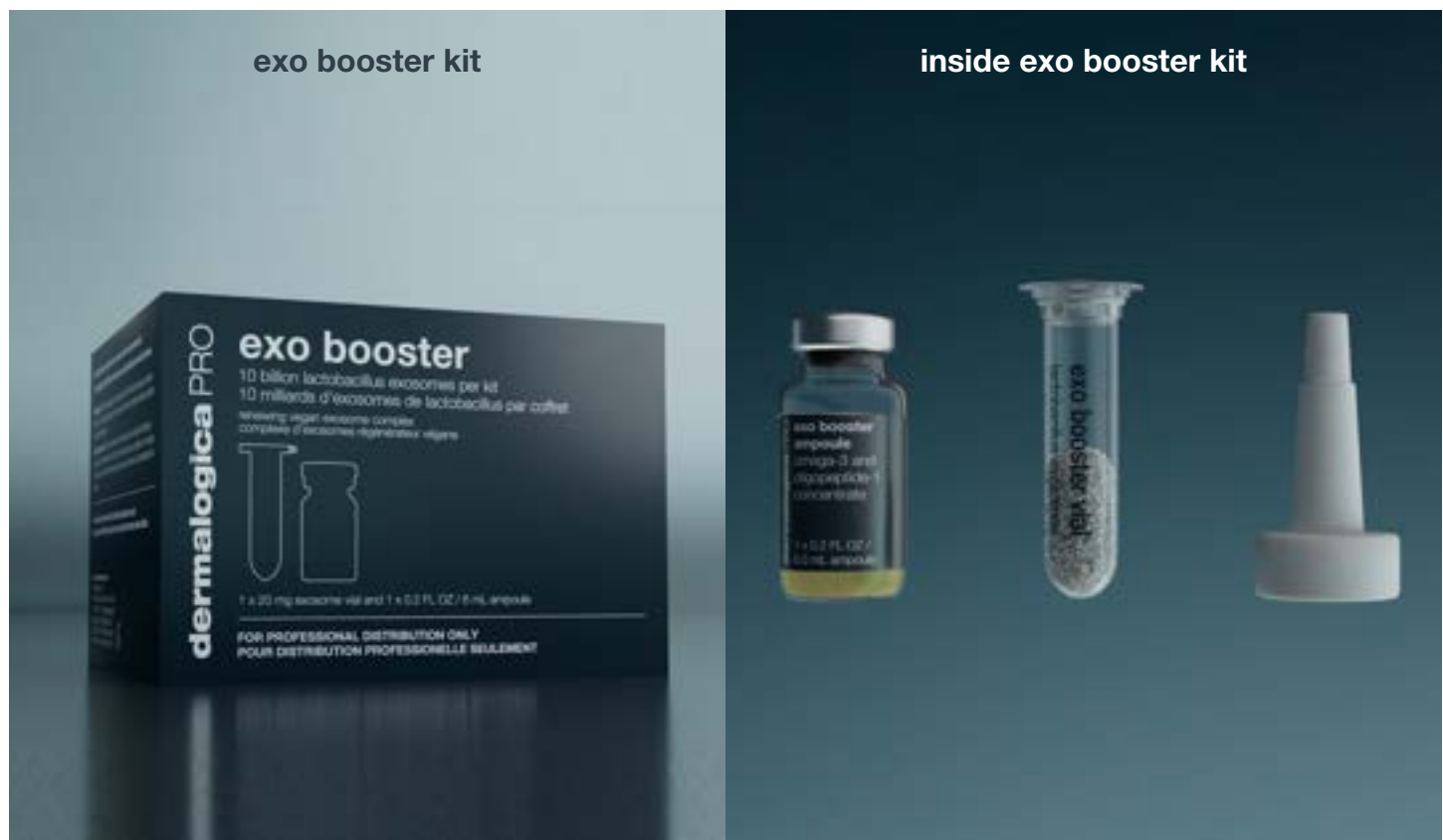


Mass Secretion of Exosomes (Apoptosis/Stress/Artificial Application)

When cells are damaged or destroyed, they release large amounts of exosomes. These exosomes signal nearby cells to start regenerating, prompting new cell growth to repair damaged areas.



introducing exo booster



exo booster

clinical results

Exo Booster is **superior to human exosomes** for aesthetic procedures.*

86% greater reduction in wrinkle appearance compared to treatment alone.**

46% increase in skin resilience compared to treatment alone.**

what it is

This bi-phase professional treatment takes advanced services to the next level. Lactobacillus Exosomes deliver encapsulated bioactives segregated by living cells to combine with restorative Pro Resolution Technology, helping to support natural cell renewal and boost skin's vitality.

who it's for:

Suitable for all skin types and recommended for clients that want to rejuvenate the skin barrier and take results to the next level.

key ingredients

- **10 billion skin-rejuvenating exosomes** in every kit
- **Omega 3** and **Bacillus Ferment** help strengthen skin
- **Peptides** and **Phospholipids from Olive Stem Cells** increase firmness

application

- Combine the powder in the plastic vial with the liquid ampoule and shake vigorously.
- Once dissolved, place the applicator on top and apply to the face and neck post-treatment.
- Re-apply the evening after the treatment, and twice a day for 7 days post-treatment or as directed by skin professional.

*30 subjects - clinical study with ultraclear laser (ablative settings), RF Microneedling and Tixel. Split face method measurements at Day 2, Day 7 and Day 21.
**35 subjects - clinical study with microneedling. Split face method. 21 days post treatment.



discovery: lactobacillus exosomes, boosted by pro resolution technology surpasses human exosomes*

our exosome technology: superior to human exosomes for aesthetic procedures*

When combined with our Pro Resolution Technology—which includes omega-3 and oligopeptide-1 concentrate—*Lactobacillus* exosomes deliver superior results in skin recovery, rejuvenation, and overall skin health, even **surpassing human exosomes**. These *Lactobacillus* exosomes are truly innovative, and their potency is elevated promoting faster recovery and enhanced results.

This advanced exosome technology, which exceeds the performance of human exosomes (the current gold standard), forms a powerful blend called “Exo Booster,” which has an **86% greater reduction in wrinkle appearance compared to treatment alone.****



*30 subjects - clinical study with ultraclear laser (ablative settings), RF Microneedling and Tixel. Split face method measurements at Day 2, Day 7 and Day 21.
 **35 subjects – clinical study with microneedling. Split face method. 21 days post treatment.

exo booster: the perfect post-treatment enhancer

Exo Booster provides a comprehensive approach to post-treatment skincare, accelerating recovery while enhancing results for healthier, glowing skin. Ideal for use alongside professional skincare treatments, Exo Booster empowers the skin to recover, restore, and rejuvenate, ensuring each treatment achieves its full potential for lasting vitality.

Exo Booster is expertly formulated to complement and elevate results of advanced skincare treatments, making it ideal for post-procedure use. Key benefits include:

Enhanced Compatibility: Perfect for use after microneedling, RF microneedling, and both ablative and non-ablative laser treatments.

Deeper Penetration: Designed to work with treatments that create micro-channels or controlled skin disruption, allowing Exo Booster to deliver potent bioactive molecules precisely where they're needed.

Accelerated Recovery: Promotes faster recovery, reducing downtime and enhancing the effects of your treatments.

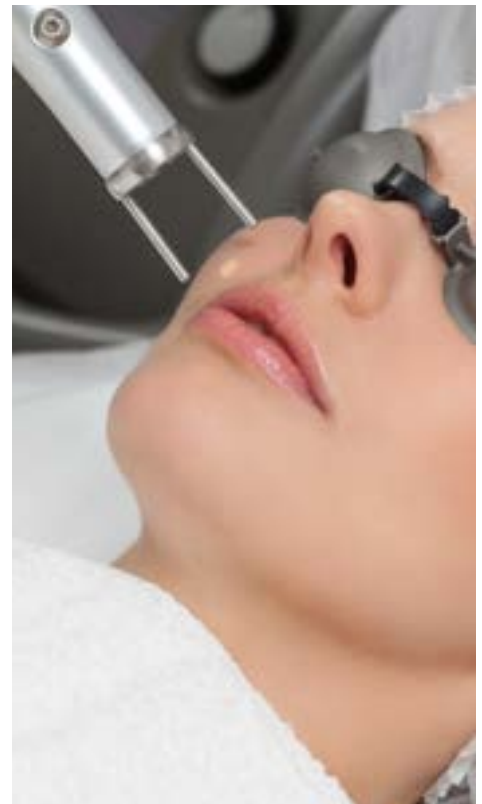
Improved Hydration & Resilience: Boosts hydration, strengthens the skin barrier, and improves resilience, leaving skin healthier and more radiant.



microneedling



RF microneedling



ablative and non ablative lasers



scientific research and clinical studies

Our research approach focuses on maximizing the potential of bacterial exosomes for skin health through two key areas:

Exo Booster Amplification:

We assessed the added benefits of Exo Booster alongside traditional skincare procedures, quantifying its enhancement effects.

Comparison with Other Exosomes:

We compared Exo Booster's performance with human and plant-derived exosomes to highlight its unique advantages.

In collaboration with four renowned doctors, these studies demonstrate Exo Booster's superior efficacy in promoting skin health, resilience, and vitality.



Dr. Glynis Ablon, MD, FAAD
(Los Angeles, USA)
Owner of Ablon Skin Institute
& Research Center



Dr. Vincent Wong, MD
(London, UK)
Owner of Omniere



Ted Vuong, NP-C
(Los Angeles, USA)
Owner of Regenix Skin Labs



Dr. Marco Bartolucci, MD
(Milan, Italy)
Owner of Sotherga

clinical study results: exo booster x microneedling

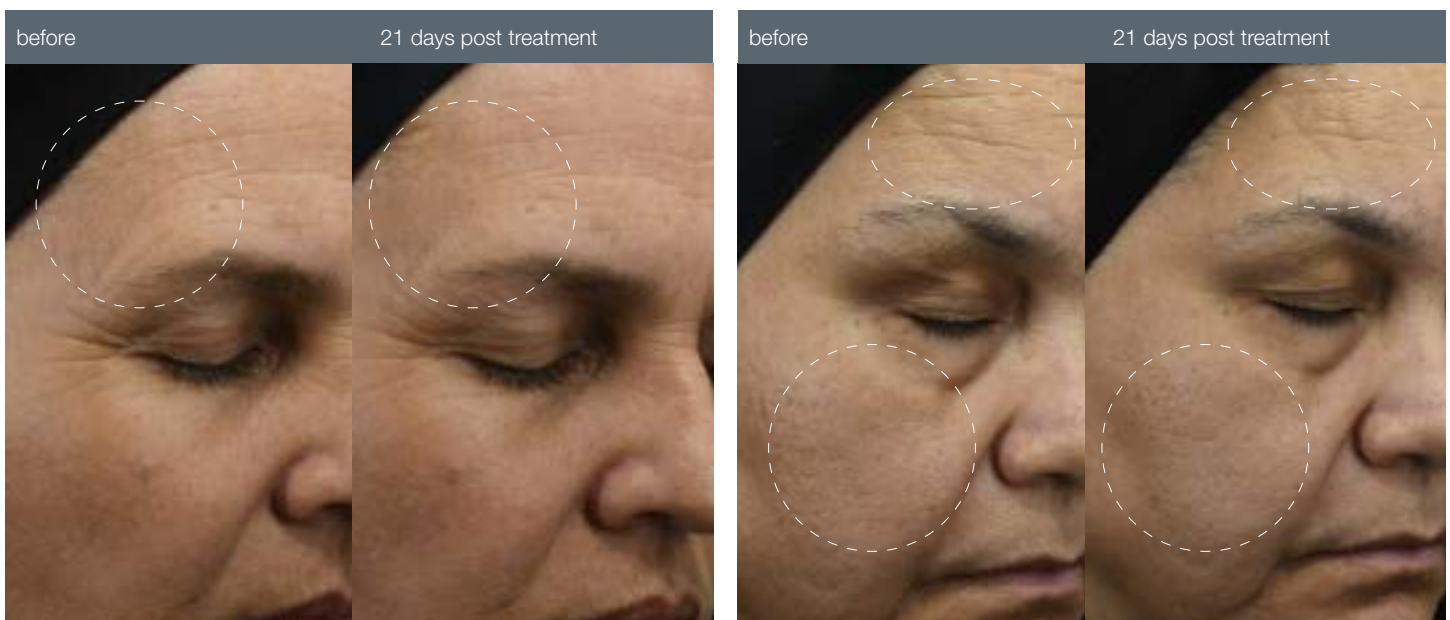
The Exo Booster clinical study showcased impressive results in a **three-week trial conducted with 35 participants**. The study used a **randomized split-face design to compare the effectiveness of the Exo Booster against a saline control**. Participants applied the Exo Booster once daily for two weeks, followed by a week where only moisturizer and SPF were used. Evaluations were conducted at multiple time points: baseline, 30 minutes, 2 days, 2 weeks, and 3 weeks, using both objective clinical measures, such as Mexameter and Cutometer readings, and subjective consumer perception assessments.

key findings

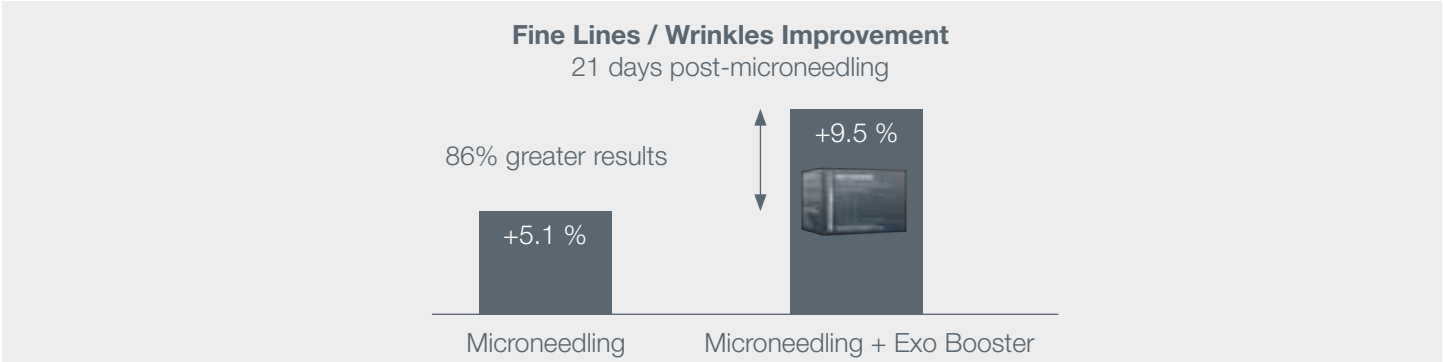
Key findings highlighted that the **Exo Booster consistently outperformed the control in improving skin texture, firmness, elasticity, and redness reduction**. By the end of the study, **participants using Exo Booster exhibited twice the improvement in skin elasticity compared to the control, with 100% of participants showing enhanced skin resilience**. Additionally, Exo Booster delivered noticeable reductions in redness after microneedling, with skin color returning to its baseline state within 2 days, a result not observed with the control. **Clinical expert evaluations further confirmed significant improvements in general skin appearance, wrinkles, and firmness after just two weeks, with results continuing to improve over three weeks.**

consumer perception

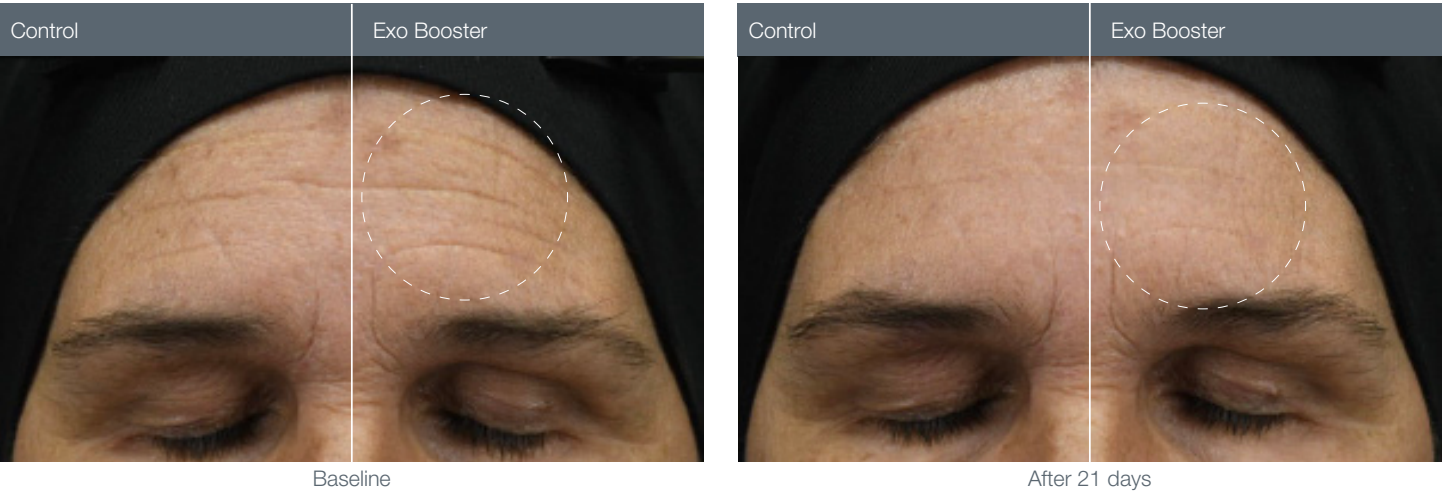
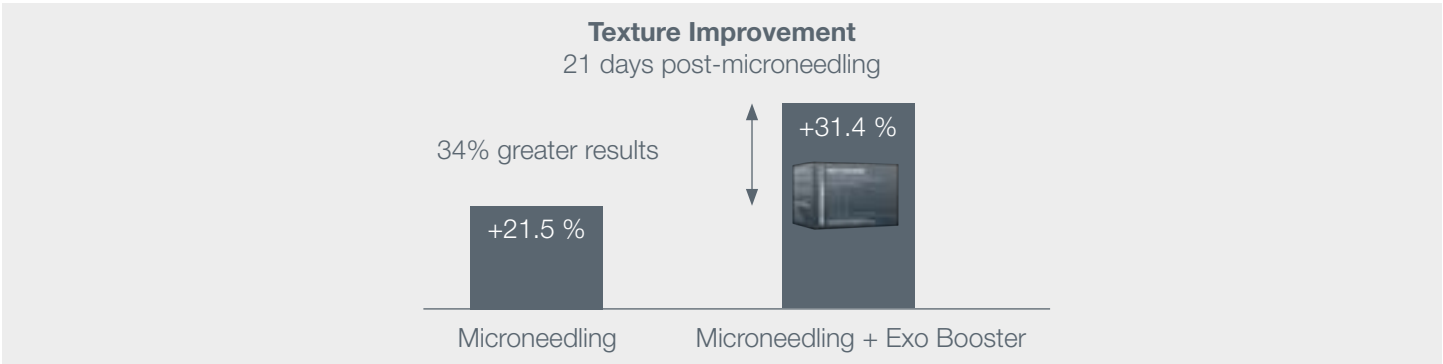
Consumer perception surveys echoed these results, with participants reporting faster skin regeneration, improved comfort, and reduced redness and irritation immediately after Exo Booster application. **By the end of the trial, 100% of participants reported smoother, more radiant, and youthful-looking skin, with notable improvements in hydration, elasticity, and firmness.** These findings underscore the Exo Booster's ability to deliver visible, rapid, and lasting improvements in skin health and appearance, making it a powerful addition to advanced skincare regimens.



Achieves 86% greater reduction in wrinkle appearance compared to treatment alone.**

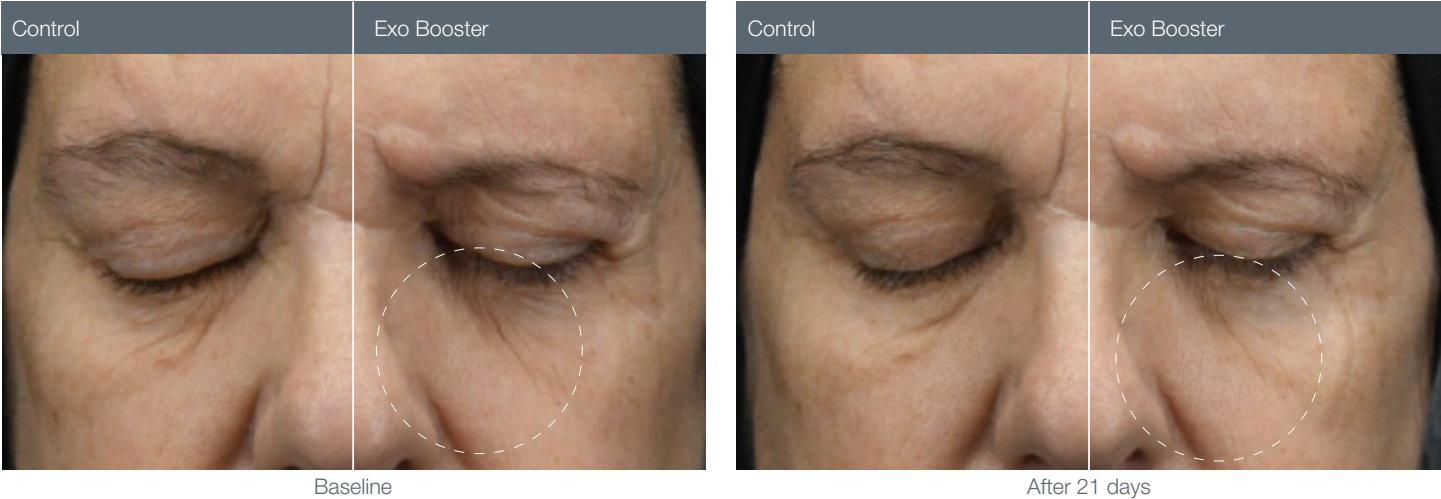
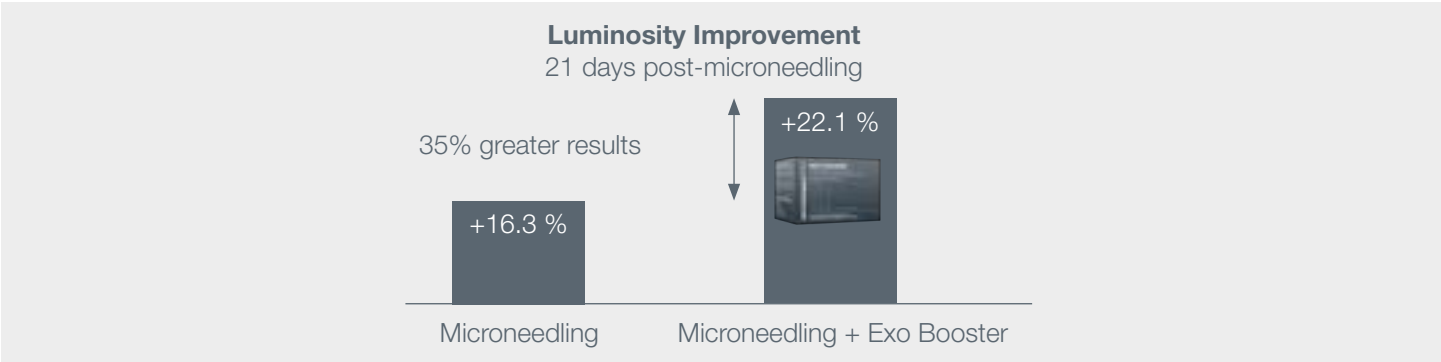


Achieves texture improvements by 34% compared to the control.**

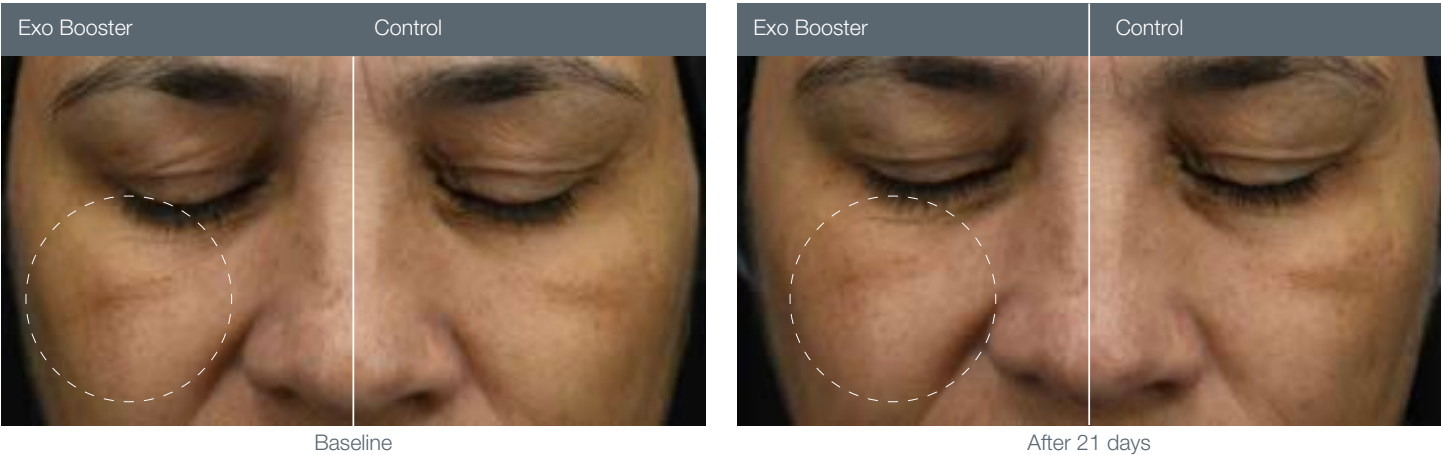
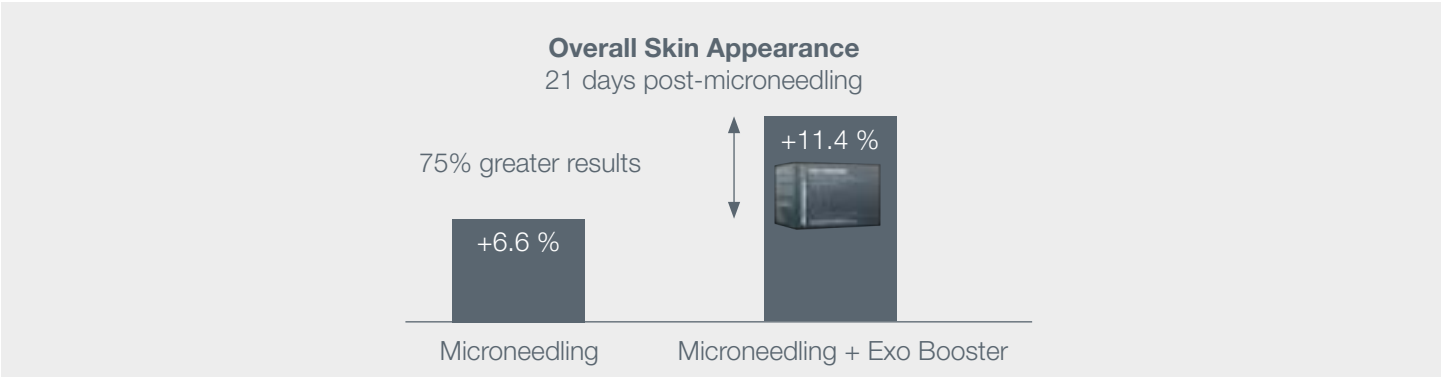


**35 subjects – clinical study with microneedling. Split face method. 21 days post treatment.

Boosts 35% in luminosity compared to the treatment alone.**



Delivers 75% in overall skin appearance over the control.**



**35 subjects – clinical study with microneedling. Split face method. 21 days post treatment.



Dr. Glynis Ablon, MD, FAAD

(Los Angeles, USA)

exo booster vs human exosomes with Tixel laser

Dr. Glynis Ablon is the founder of Ablon Skin Institute and Research Center in Los Angeles, California. The Ablon Skin Institute Research Center is an independent clinical research site specializing in dermatology clinical trials, performing more than 70 aesthetic and medical trials. She conducted a study with 10 subjects comparing the efficacy of **Exo Booster** (our bacterial exosome system) **versus human exosomes**, both paired with Tixel laser.

"These new lactobacillus exosomes provide soothing emollient to patient's skin. They provide a level of dramatic relief and improved healing sensation compared to the human based exosomes."

For 80% of subjects Exo Booster showed superior efficacy vs. human exosomes, and for 20% of subjects it showed similar efficacy in terms of post-procedure recovery, result amplification at 21-day timepoint, and overall patient satisfaction on the following aspects: skin texture and smoothness, appearance of lines and wrinkles, and skin redness.





Dr. Vincent Wong

(London, UK)

exo booster vs human exosomes with Morpheus 8 RF Microneedling

Dr. Vincent Wong, a renowned aesthetic doctor in London, UK, conducted a study with 10 subjects comparing the efficacy of **Exo Booster** (our bacterial exosome system) **versus human exosomes**, both paired with Morpheus 8 RF Microneedling.

*"The feedback has been overwhelmingly positive. Many patients prefer the texture and consistency of Exo Booster, finding it superior in feel and application compared to human exosomes. The results have shown that **Exo Booster not only integrates seamlessly with RF microneedling but also enhances the overall experience and outcome for clients, driving high satisfaction and impressive skin revitalization.**"*

For all subjects, Exo Booster showed same level to superior efficacy vs. human exosomes in terms of post-procedure recovery, result amplification at 21-day timepoint, and overall patient satisfaction.

exo booster



human exosomes





Ted Vuong, NP-C

(Los Angeles, USA)

exo booster vs human exosomes with UltraClear laser - ablative setting

Ted Vuong, NP-C, celebrity aesthetics practitioner and owner of Regenix Lab clinic in Los Angeles conducted a study with 10 subjects comparing the efficacy of **Exo Booster** (our bacterial exosome system) **versus human exosomes**, both paired with UltraClear laser on ablative settings.

*"Advancing skin health requires a deep understanding of both science and aesthetics. The launch of **Exo Booster** marks a new era in skin rejuvenation, where innovation meets biology to achieve truly transformative results."*

For all subjects, Exo Booster showed same level to superior efficacy vs. human exosomes in terms of post-procedure recovery, result amplification at 21-day timepoint, and overall patient satisfaction.



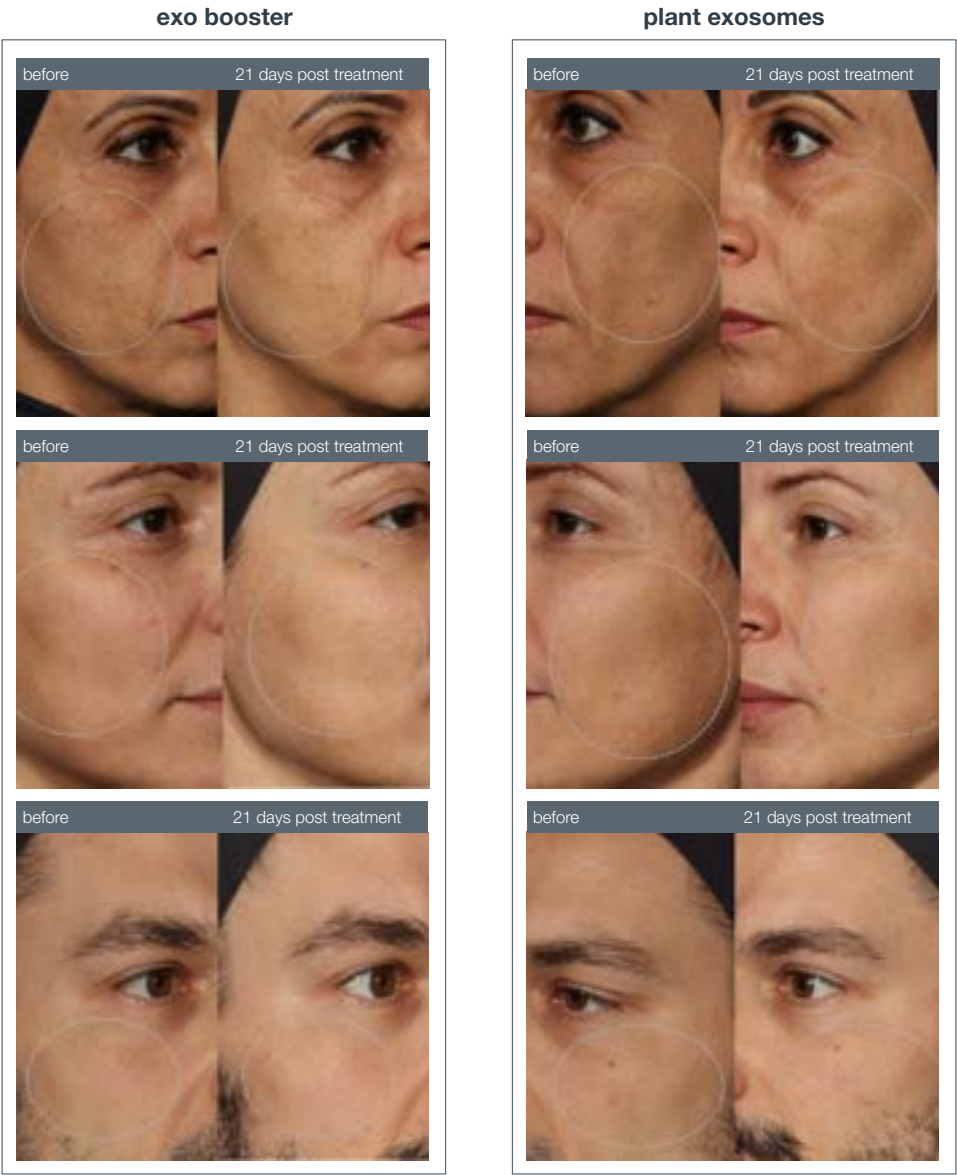


Dr. Marco Bartolucci
 (Milan, Italy)
 exo booster vs plant exosomes with Fraxel laser

Dr. Marco Bartolucci is the founder of Sotherga Clinics in Milan and Rome. He is a renowned **expert in regenerative medicine and aesthetics**, and he conducted a study with 10 subjects comparing the efficacy of Exo Booster (our bacterial exosome system) versus plant exosomes, both paired with Fraxel laser.

“Exo Booster’s innovative bacterial exosome technology consistently enhances treatment outcomes while accelerating skin recovery, leading to significantly higher patient satisfaction. It outperforms any other exosome system we’ve used, and we’re thrilled to witness such groundbreaking advancements benefiting our clinics”

For 80% of subjects Exo Booster showed superior efficacy vs. plant exosomes, and for 20% of subjects it showed similar efficacy in terms of post-procedure recovery, result amplification at 21-day timepoint, and overall patient satisfaction on the following aspects: skin texture and smoothness, appearance of lines and wrinkles, and skin redness.



exo booster

microneedling - protocol

Double Cleanse:

1. Perform first cleanse with PreCleanse.
2. Perform Face Mapping skin analysis.
3. Apply skin-specific cleanser for a second cleanse.

Resurfacing

1. Apply One Step Prep.
2. Apply skin-specific Pro Power Peel (1-2 layers).
3. Apply Neutralizing Solution after Pro Power Peel and remove as directed.
 - Dull Skin: UltraBright Peel
 - Pore Refining: PowerClear Peel
 - Hyperpigmentation: UltraBright Peel
 - Lines and Wrinkles: AdvancedRenewal Peel

Numbing:

1. Apply numbing cream per the manufacturer's directions and recommended time.
2. Remove numbing cream as directed by manufacturer. Use Special Cleansing Gel to assist with removal if a full cleanse is necessary.

Deep Treatment with Microneedling:

1. Apply Hyaluronic Acid IonActive Serum to the entire area.
2. Then, apply Hyaluronic Acid IonActive Serum to the first zone and perform the Dermalogica Microneedling technique. Repeat for all areas.
3. Once complete, remove excess debris with damp esthetic wipes.

Dermal Layering with Exo Booster:

1. Apply Exo Booster.
 - First, open the Exo Booster Kit and pour the exosomes into the Pro Resolution solution; this activates the exosomes.
 - Shake the solution until the exosomes are dissolved, then place the applicator on top.
2. Dispense 1 drop onto the forehead, each cheek and chin. Gently spread with fingertips.

Home Care:

1. Send client home with the remaining Exo Booster for use.
2. Start the evening of the treatment.
3. Use morning and night for 7 days.



exo booster service - protocol

Double Cleanse:

1. Dispense 1-2 pumps PreCleanse and manipulate on dry face for 1-2 minutes.
2. Emulsify with water and manipulate for 1-2 minutes then remove with damp sponges or esthetic wipes.
3. Perform Face Mapping skin analysis.
4. Dispense 1-2 pumps Daily Glycolic Cleanser and emulsify with water to perform a second cleanse then remove with damp sponges or esthetic wipes.

Resurfacing

1. Use Post Extraction Solution to degrease the skin.
2. Apply a small amount of PreCleanse to the skin.
3. Perform dermaplaning with gloves.
4. Remove any residue with damp esthetic wipes.
5. Apply 2 pumps of Exfoliant Accelerator 35. Massage over the face. Leave on for up to 5 minutes. Then remove with damp esthetic wipes.
6. Dispense 2 pumps of Retinol Accelerator into gloved hands and apply to the face. Avoid the eye area.
7. Apply a maximum of 2 layers, allowing 1 minute in between layer applications.
8. While Retinol Accelerator processes on the skin for up to 10 minutes, provide a Touch Therapy such as Neck & Shoulder or Stress Relief Scalp.
9. Remove with damp esthetic wipes.

Pro-tip: If still feeling elevated sensations, provide a cleanse with Special Cleansing Gel.

Dermal Layering:

1. Remove gloves and spritz 3-6 pumps of Antioxidant Hydramist. Then apply a thin layer of Exo Booster with fingertips. Dispense 1 drop onto the forehead, each cheek and chin.
2. Penetrate Exo Booster w/ Ultrasonic Spatula. Provide two passes using slow, long strokes to ensure enhanced penetration.
Pro-tip: To enhance slip and glide, spritz with Antioxidant Hydramist.
3. Finish with Dynamic Skin Recovery SPF 50 or Skin Smoothing Cream with Invisible Physical Defense SPF 30 layered on top.

Home Care:

1. Please ensure that your client takes home the remaining Exo Booster to apply in the evening after the treatment, as well as in the morning and at night for 7 days.
2. After applying 4 drops of Exo Booster to the face, with fingertips, gently spread to allow for optimal product penetration.
3. For daytime, use a mineral sunscreen such as Invisible Physical Defense SPF 30.



exo booster

RF microneedling - protocol

Double Cleanse:

1. Perform first cleanse with PreCleanse.
2. Perform Face Mapping skin analysis.
3. Apply Special Cleansing Gel for second cleanse.

Numbing:

1. Apply numbing cream per the manufacturer's directions and recommended time.
2. Remove numbing cream as directed by manufacturer. Use Special Cleansing Gel to assist with removal if a full cleanse is necessary.

Deep Treatment with RF Microneedling:

3. Proceed with RF microneedling treatment.

Dermal Layering:

1. Apply Exo Booster.
2. Send client home with the remaining Exo Booster.
3. Start using the evening of the treatment.
4. Use in the morning and evening for 7 days.
5. Share additional at home care instructions and recommended treatment program.



exo booster non ablative and fractional lasers - protocol

Double Cleanse:

1. Perform first cleanse with PreCleanse.
2. Perform Face Mapping skin analysis.
3. Apply Special Cleansing Gel for second cleanse.

Numbing:

1. Apply numbing cream per the manufacturer's directions and recommended time.
2. Remove numbing cream as directed by manufacturer. Use Special Cleansing Gel to assist with removal if a full cleanse is necessary.

Deep Treatment with Laser Treatment:

3. Proceed with laser resurfacing treatment.

Dermal Layering:

1. Apply Exo Booster.
2. Send client home with the remaining Exo Booster.
3. Start using the evening of the treatment.
4. Use in the morning and evening for 7 days.
5. Share additional at home care instructions and recommended treatment program.



exo booster

CO₂ Laser (ablative laser) - protocol

Days 1-7 post-treatment care:

1. Avoid direct sunlight and excessive heat. It's recommended to stay indoors for 1 week.
2. Begin cleansing your face two times a day with lukewarm water and UltraCalming Cleanser.
3. Apply Exo Booster two times a day after cleansing skin then apply a thin layer of healing ointment to keep skin moist.
4. You may take a shower and wash hair, avoiding hot water.
5. Itchiness can be relieved with a mix of distilled water and vinegar (tiny amount) dabbed on with a cotton ball, as well a small amount of the healing ointment throughout the day to relieve itchy skin and to keep it from drying out

Days 7-14 post-treatment care:

1. Itching usually subsides, and skin has mostly peeled.
2. Start to apply Pro Restore immediately after cleansing and let it absorb before applying SPF.
3. Use non-irritating physical sunscreen SPF 30+ with zinc oxide and/or titanium dioxide when going outside such as Invisible Physical Defense SPF 30. *Skin will dry out quickly, so it is recommended to apply a healing ointment as needed to keep skin moist throughout the day.

Days 14-28 post-treatment care:

1. You can restart brightening creams or serums 4 weeks after the treatment to continue to minimize hyperpigmentation.
2. Continue applying a physical sunscreen of SPF 30+ and using mineral makeup (powder) to protect treated areas (do not use liquid foundation as it may clog pores and irritate new skin).
3. You may return to exercise.



FAQs

Q: What is the source of the lactobacillus bacteria used to produce the lactobacillus exosomes?

A: The *Lactobacillus* bacteria used for the production of our exosomes is vegan, using plant-based fermentation. The *Lactobacillus* is derived from cabbage, where it naturally occurs. This method allows us to harness the powerful benefits of *Lactobacillus* exosomes while maintaining vegan standards.

Q: Are the lactobacillus exosomes freeze dried or co2 dried?

A: Studies have shown that lyophilization (freeze-drying) can effectively preserve the bioactivity and structural integrity of exosomes, allowing for long-term storage at room temperature while maintaining their functional properties after rehydration.

Q: Is there understanding of the steps that were taken to preserve the bioactivity and structural integrity of the exosomes during lyophilization?

A: Cryoprotectants are essential in exosome preservation; incorporating substances like trehalose during lyophilization safeguards exosomes from ice crystal damage during freezing and drying. Maintaining bioactivity is critical, and studies show that exosomes lyophilized with effective cryoprotectants retain their biological function, including the ability to interact with target cells. Additionally, lyophilization offers significant storage benefits by enabling exosomes to be stored long-term at room temperature, removing the need for continuous cold chain management.

Q. Can Exo Booster be used at the end of other treatments?

A: Yes, Exo Booster can be used at the end of other treatments. For optimal results, it's important to choose treatments that enhance dermal penetration, allowing the exosomes to work effectively. Ideal treatments include microneedling, RF microneedling, lasers, or combinations like dermaplaning with peels or microdermabrasion with peels, as these create the best conditions for exosome absorption.

Q: When completing use of Exo Booster at home, which products can and cannot be used?

A: Any products can be used.

Q: How long is the Exo Booster active once opened – does it need to be used within the 7 days?

A: PAO (period after opening): After opened and mixed, use within 7 days.