

# PRIME®

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NORTH AMERICA

**STEM CELLS**  
IN DERMATOLOGY  
AND ANTI-AGING

**INJECTION  
RHINOPLASTY**  
A CASE STUDY

**MICRONEEDLE  
RADIOFREQUENCY**  
FOR SKIN REJUVENATION

*The treatment of*  
INFLAMMATORY  
PIGMENTATION  
*with a picosecond laser*

# ALASTIN SKINCARE® TAKES THEIR PROPRIETARY TRIHEX TECHNOLOGY® TO THE NEXT LEVEL

**Wendy Lewis** talks to the team behind Alastin Skincare® about their latest products and to the practitioners who can't seem to get enough of Alastin's Procedure Enhancement Technology



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**A**LASTIN SKINCARE, FOUNDED IN 2015 IN CARLSBAD, CA, IS A SPECIALTY aesthetics company on a mission to develop innovative, clinically-tested physician-dispensed skin care products with their proprietary (patent-pending) TriHex Technology®.

At the helm of the company is **Diane Goostree**, an aesthetic industry veteran and powerhouse. In 2015, she joined Alastin Skincare in the role of President & CEO. Aesthetic practices have evolved and learned that dispensing science-based skincare products allows another touchpoint with their clients and ensures appropriate guidance from a skincare professional to select products that address their daily skincare and anti-aging needs. Appropriate topical products also help to maximize overall aesthetic results with any other treatments that may be offered by the practice, including fillers, lasers, microdermabrasion, peels and cosmetic surgery. Discerning skincare customers are well educated about ingredients and how these products work because they are doing their homework and reading labels. They have high standards and are willing to invest in a regimen that makes a visible difference in the health of their skin,' she says.

Under her direction, Alastin has remained true to its mission of being a brand steeped in science. They have generated 12 clinical studies since their launch, 9 of which are completed (*Table 1*), and have more in the works for their professional skincare range which consists of a daily skincare line and a pre/post-procedure line that now total 11 products.

'We continue to generate exciting clinical results and case studies with our procedure products with an ever-growing list of treatments as well as with our daily skin care line. Our commitment is to deliver industry-leading innovative formulations that are effective and make a real impact,' says Ms. Goostree.

## Patent-pending TriHex Technology

The Alastin range of industry-leading procedure products were developed by veteran cosmetic



chemist John Garruto along with Alastin's Chief Medical Officer, plastic surgeon Alan D. Widgerow, MBBCh(MD); MMed(MHS); FCS (Plast); FACS, whose background is in wound healing. He is a Professor of Plastic Surgery and the Director of Center for Tissue Engineering, Dept. of Plastic Surgery, University of California, Irvine.

According to Dr. Widgerow, 'environmental exposure to elements such as sun and pollution and the natural aging process within the cells are the principal factors challenging the balance of skin metabolism involving regeneration and renewal on a daily basis. On a cellular, molecular level the area most affected by these changes is the extracellular matrix, or ECM (ECM is a collection of extracellular molecules secreted by cells). The ECM facilitates cell-to-cell and cell-to-matrix communication. In young healthy skin, collagen and elastin fibers are long, healthy, and in constant communication with fibroblasts (the cell that produces collagen and other fibers) in the ECM. In addition, in the young healthy skin, the ability to maintain balance or normal functioning by protein degradation and removal (proteasomic and autophagic systems) can effectively prevent the accumulation of damaged proteins both intracellularly and within the ECM. In older, damaged skin the systems become inefficient, with the buildup of unfolded proteins and glycation end products that results in sticky brittle collagen. The resulting fragmented waste products clog up the ECM and limit communication or 'cross-talk' between the fibroblasts and the structural fibers. Fragmentation of this collagen in the ECM environment also prevents good fibroblast attachment resulting in round, inefficient, "lazy" senescent cells, thought to be the major cause of the reduced collagen

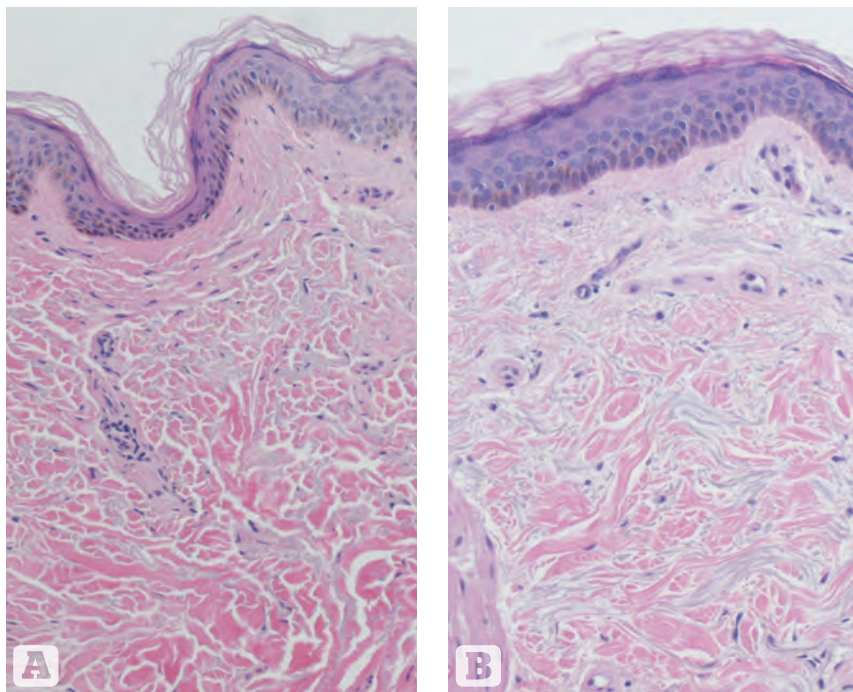
“ Our science is concentrated on the ECM, which is the foundation for skin health. ”

and elastin production in both photoaged and chronologically aged human skin fibroblasts.’

The Alastin TriHex Technology® combines selected peptides and active botanicals that target the negative ECM changes described above, in deeply penetrating formulations. In a sequence of events, these carefully selected ingredients progressively break down the clumped collagen/gelatin elastin bundles through selective protease release and then stimulate replacement with new collagen and elastin, effectively recycling the ECM into a refreshed milieu that is ideal for new regeneration alone or in synergy with procedures being undertaken. The choice of particular peptides and other key ingredients revolves around a synergistic and sequential mode of action. In this case, more peptides are not necessarily better but the combination of peptides and other ingredients with a targeted function of modulating the ECM is the secret of success here.

Plastic surgeon **Steven R. Cohen** of Faces + in San Diego, CA, had this to say about Alastin's proprietary TriHex Technology. In previous studies, we demonstrated pronounced improvement in collagen and elastin with a simple two-week course using Regenerating Skin Nectar before facelift surgery. The rapid cleanup of the extracellular matrix with improvement in elastin and collagen was very complementary with our regenerative approaches. Under the microscope, the tissues looked like someone raked the leaves, leaving behind a beautiful lawn.’

Mr. Garruto, who formulated the Alastin range, explains; 'Peptides are much better suited to absorb into the skin than products, such as growth factors and other large >



**Figure 1** H/E staining (100X) showing ECM and epidermal changes following 3 week topical application of serum containing TriHex peptides and botanicals to the forearm (female 65 years). (A) Baseline H/E stained sections from non-treated forearm skin shows thicker, mature collagen bundles, and thinner epidermis with flattened basal cells. (B) Post-treatment, the epidermis shows less atrophy, with increased number of layers, more cuboidal basal cells, and recovery of normal epidermal maturation. The ECM shows finer collagen bundles, likely representing neocollagenesis. (Photo credit: Calame A, Widgerow AD (2017) Histological Changes Associated with Extracellular Matrix-Remodeling Topical Therapy. Dermatol Case Rep 2: 126)

▷ molecules. The molecular weight of growth factors is very large and as such, only a tiny amount can penetrate into the epidermis, through the follicular system. Alastin's TriHex peptides have a much lower molecular weight and are formulated to absorb quickly and efficiently into the skin.

### Pre- and post-procedure prowess

At the core of the Alastin range is their commitment to enhancing the patient experience and speeding up the healing process after rejuvenating procedures. The Procedure Enhancement as well as the Restore & Renew products are formulated with a proprietary combination of key peptides and other synergistic ingredients using the latest technology and are clinically tested to demonstrate safety and their ability to help reawaken the skin's youthful regenerating processes.

There are two systems that complete the range. The Non-Invasive System contains Alastin Regenerating Skin Nectar® with TriHex Technology®, Gentle Cleanser, Ultra Nourishing Moisturizer with TriHex Technology®, and Broad Spectrum SPF30 Sunscreen. The Invasive System also contains the Soothe and Protect Recovery Balm to support the regeneration and recovery of skin after an ablative cosmetic rejuvenating procedure.

Many of our healthcare providers have developed protocols to start their patients on the Alastin Regenerating Skin Nectar that contains our patent-pending TriHex Technology® for two weeks prior to a procedure. This allows them to optimize and prepare the skin so that it is as healthy as possible and ready for the procedure. Our products are also used immediately post-procedure to help with healing, address inflammation, reduce

## Summary of Alastin Skincare Completed Clinical Studies

Study	Devices Used	Alastin Products Used
Procedure Enhancement System following laser resurfacing. J Cosmet Dermatol. 2017;00:1-6.	CO <sub>2</sub> IPL/PDL with 755-nm quality-switched (QS) alexandrite, (Syneron Candela) followed by 10,600-nm fractionated carbon dioxide (CO <sub>2</sub> ) laser resurfacing	Procedure Enhancement System (Gentle Cleanser, Regenerating Skin Nectar, Ultra Nourishing Moisturizer, Soothe + Protect Recovery Balm, Broad Spectrum SPF 30)
Procedure Enhancement System vs.a Basic Regimen Pre and Post-Fractional Non-Ablative Laser Resurfacing Treatment to the face and decolette. J Drugs Dermatol. 2017; 16(7): 707-710	1927 Fraxel dual - Fractional thalium doped non-ablative (Solta Medical/Valeant)	Procedure Enhancement System (Gentle Cleanser, Regenerating Skin Nectar, Ultra Nourishing Moisturizer, Soothe + Protect Recovery Balm, Broad Spectrum SPF 30)
Evaluating the efficacy of an tripeptide/hexapeptide antiaging regimen. J Cosmet Dermatol. 2018;00:1-7.	No device	Anti-aging Regimen (Restorative Skin Complex , Daily Moisturizer, Broad Spectrum SPF 30, and Gentle Cleanser
Evaluating a novel TriHex peptide and botanical-containing eye treatment compared to baseline. J Cosmet Dermatol. 2018;00:1-4.	No device	Restorative Eye Treatment
Histological Changes Associated with Extracellular Matrix-Remodeling Topical Therapy. Dermatol Case Rep 2: 12	No device	Anti-aging Regimen
Comparing a standard skin care regimen with and without Alastin Regenerating Skin Nectar pre and post Halo Hybrid skin resurfacing treatment to the face.	Halo Hybrid Fractional Laser (Sciton)	Procedure Enhancement System (Gentle Cleanser, Regenerating Skin Nectar, Ultra Nourishing Moisturizer, Soothe + Protect Recovery Balm, Broad Spectrum SPF 30)
Alastin Regenerating Skin Nectar and sunscreen vs. sunscreen alone post radiofrequency resurfacing treatment to the hands.	Radio Frequency	Regenerating Skin Nectar, Broad Spectrum SPF 30
An evaluation of the efficacy and tolerability of Alastin Skincare System as a pre- and post- radiofrequency microneedling topical regimen versus post treatment use of topical antioxidant serum and ceramide moisturizer	RF Microneedling	Procedure Enhancement System Gentle Cleanser, Regenerating Skin Nectar, Ultra Nourishing Moisturizer, Soothe + Protect Recovery Balm, Broad Spectrum SPF 30)
Extracellular Matrix Modulation: Optimizing Skin Care and Rejuvenation Procedures. Journal of drugs in dermatology 2016; 15(4s): S63-S71	No device	Technology Overview

downtime and enhance and maintain the results,' says Ms. Goostree. Due to popular demand, in addition to take-home products, they also offer their customers a larger back bar size of their signature Regenerating Skin Nectar to apply immediately after a treatment.

'The same mechanisms that help recycle ECM "debris" in the Alastin procedure products, when formulated with additional peptides and other actives, make products with this technology a superior daily skin care line for all skin types,' says Dr. Cohen. 'Think of it as a first line of defense against laxity, sagging, and loss of elasticity.'

According to Dr. Widgerow, 'Our science is concentrated on the ECM, which is the foundation for skin health. Signaling between cells, collagen, elastin, glycosaminoglycans is dynamic and ongoing and ensures that skin layers are constantly renewing, and the structural fibers remain robust and healthy. By in-depth focusing on recycling waste products in this region, we have developed a unique strategy for maintaining active cross talk between cellular and extracellular components. One can hardly expect a good vine and a good wine if the soil has been neglected.'

Mr. Garruto adds, 'Although all TriHex Technology® products follow this "recycling" philosophy, each product is designed with due consideration to the anatomic area, the particular changes that occur there with time, and optimizing device outcomes wherever they are used.'

TriHex technology works very effectively to prep the skin for lasers and surgery and to speed up the recovery process. According to dermatologist **Suzanne Kilmer**, in Sacramento, CA, 'We love Alastin, not only as a pre- and post-resurfacing regimen to prep the skin and then help it to heal faster, but we love the added benefit of stimulating elastin production in all patients. Alastin's procedure products were specifically formulated for compromised skin, such as the Regenerating Skin Nectar which is anhydrous and preservative-free, so I am comfortable using it on ablated skin. Alastin's daily skincare line also has the TriHex technology, so we can transition our patients to the daily skincare products, including Restorative Skin Complex, Eye Treatment and Restorative Neck Complex to help patients maintain the benefits of elastin and collagen renewal on an ongoing basis.'

Dermatologist **Matthew M. Avram**, MD, JD, in Boston MA, is also a proponent of the Alastin regimen. 'Recently, we have begun to "prejuvenate" our patients' skin prior to laser and energy-based procedures. We have started with Alastin's Regenerating Skin Nectar. We begin the regimen weeks prior to laser and energy-based treatments. We have found increased patient satisfaction in addition to better compliance with our pretreatment protocol as a result. Further, we use Ultra Nourishing Moisturizing as an elegant, less-greasy formulation for post-procedure care. We use it for both ablative and non-ablative procedures,' he says.

Dermatologist **Carolyn Jacob** in Chicago, IL, just started carrying the Alastin line and says that her patients love it. 'We currently recommend Alastin's Regenerating Skin Nectar, an anhydrous and preservative free gel engineered for pre- and post-laser rejuvenation. I used it pre- and post-Fraxel® 1927 to my chest and the healing time was



**Figure 2** Daily Skincare Result: Restorative Skin Complex and Restorative Eye Treatment, Baseline and 6 weeks (Photo credit to J. Todd Andrews, MD)



**Figure 3** Procedure Result: (A) Baseline, (B) Day 4, (C) Day 7 (Photo credit: Sabrina Fabi, JOCD study)

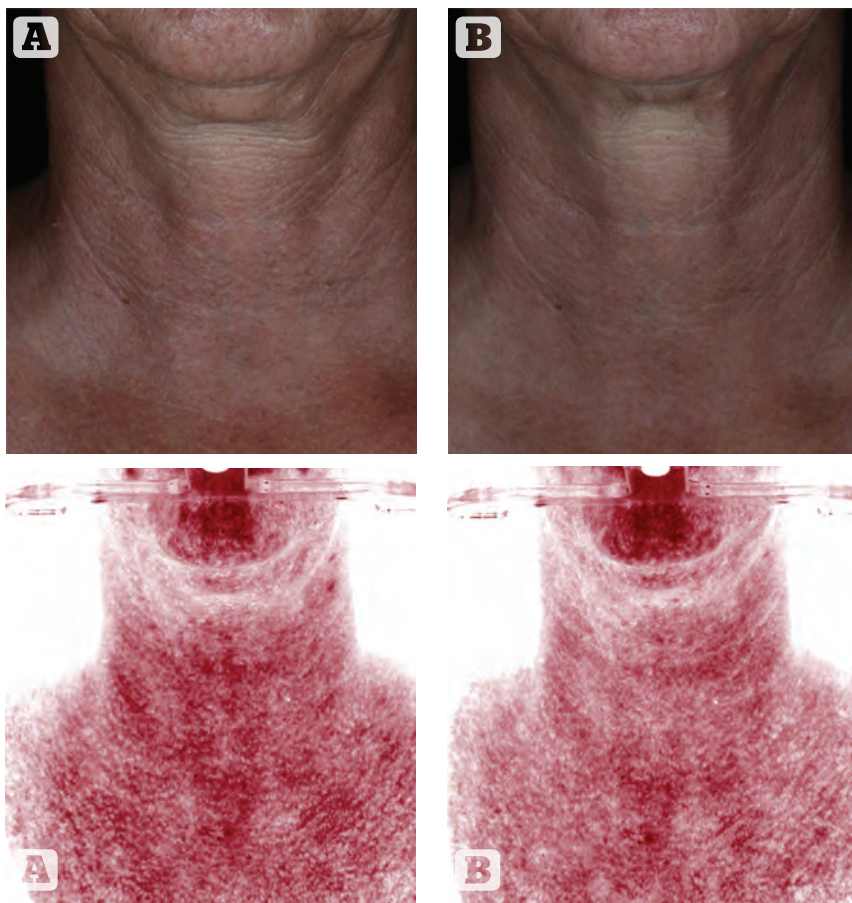
“ At the core of the Alastin range is their commitment to enhancing the patient experience and speeding up the healing process after rejuvenating procedures. ”

decreased by five days. The Restorative Eye Treatment helps fine lines and dark circles, especially in skin of color patients where we had no effective option before. We also use the Restorative Skin Complex serum for overall collagen production and elastic tissue replenishment for prejuvenation patients, as well as those with photoaging.'

More clinical trials are underway. Dermatologist **Nazanin Saedi** at Jefferson University in Philadelphia, PA has undertaken one such study on striae. 'At our center we are completing a trial on striae alba, which are very challenging, using the Alastin Regenerating Skin Nectar and the Non-Ablative Fractionated 1540nm Laser (Hologic, Inc). We are pre-conditioning the affected skin of 10 men and women for two weeks as well as post treating after each procedure. All of the current treatment options show only mild to moderate improvement after a treatment series. With the addition of Regenerating Skin Nectar, we started to see results even before adding the laser treatments, and are now seeing an overall improvement in the skin texture and also appearance of the striae after fewer laser sessions. The Regenerating Skin Nectar has also reduced the side-effects of the laser, especially post-inflammatory hyperpigmentation.'

### The neck effect

Before they consider launching a new product, the Alastin team reaches out to their physician partners to learn where the voids may be within their current professional skincare offerings. >



**Figure 4** Restorative Neck Complex, Female, Age 53. (A) Baseline, (B) 16 weeks. Study Regimen: Alastin Gentle Cleanser, AM/PM; Alastin Restorative Neck Complex, AM/PM; Alastin Broad Spectrum Sunscreen SPF 30, AM Only. 44% reduction in wrinkles on the neck; 22% improvement in overall texture on the neck; 62% reduction in redness on the neck; 51% reduction in redness on the chest. \*Individual results may vary. Images taken at baseline, 8 weeks and 16 weeks with the commercially available Canfield VISIA-CR imaging system. The quantitative parameters represent a measurement of the total area (in square millimeters) within the masked region of interest.

▷ 'We did extensive research in the market and found that there truly was no hero product that effectively addresses the signs of aging of the neck area,' says Ms. Goostree. 'Restorative Neck Complex with TriHex Technology® was introduced in early 2018, specifically to address the unique challenges of the delicate skin on the neck and décolleté. Containing TriHex Technology® to support the skin's natural ability to produce new elastin and collagen, it is an excellent product for daily use and also works synergistically with neck tightening, toning, and pigment reducing procedures. The response from our customers has been phenomenal,' she says.

Restorative Neck Complex has been shown to minimize the appearance of redness and photoaged discoloration, as well as the appearance of crepey skin, fine lines, and wrinkles. According to Houston area dermatologist **Suneel Chilukuri**, 'Based on my experience with Alastin's Restorative Neck Complex, it is both an excellent topical treatment when used on its own as a part of an ongoing skin care routine. I have found that it addresses redness associated with aging and sun damage in as little as six weeks for many of our patients. By eight weeks, patients

“Peptides are much better suited to absorb into the skin than products such as growth factors and other large molecules.”

notice that the overall texture of their neck and décolletage is improved. By 12 weeks, the majority of patients find an overall decrease in the amount of sagging of the neck skin.'

He continues, 'Since the neck skin is so different in terms of permeability and sebaceous structure when compared to the face, I consistently use the Restorative Neck Complex for prepping the skin for both nonsurgical and surgical neck tightening procedures. In addition, I have patients using this product post-procedure to enhance and extend their results.'

Dermatologist **Roy G. Geronemus** of the Laser & Skin Surgery Center of New York City, uses the Alastin product line pre- and post-laser and other energy-based procedures to facilitate healing and recovery. 'We have found the products to be well tolerated and non-comedogenic following ablative and non-ablative procedures. Pre-treatment with the Alastin Regenerating Skin Nectar often minimizes the recovery time with cosmetic procedures. We also use the Alastin product line for long-term maintenance of the benefits obtained from cosmetic procedures and for routine skin care for those who have not undergone procedures,' he says.

Alastin has received high praise from dermatologists and plastic surgeons. According to **Renato Saltz, MD, FACS**, President of ISAPS, 'At Saltz Plastic Surgery we have been using the Alastin Procedure Enhancement System as a preconditioning regimen before resurfacing, and immediately post-procedure to accelerate healing and reduce downtime. We have really noticed the improvement in skin quality even before the laser treatment. We are now adding Alastin's procedure products to our Saltz Plastic Surgery facial packages to generate the same skin quality improvements before facelifts.'

### Alastin keeps growing

The newest addition to the Alastin team is aesthetics industry veteran James P. Hartman who has joined in the role of Chief Commercial Officer. Mr. Hartman has a proven track record in developing leading brands in the medical aesthetics arena. He most recently served as Vice President & General Manager at Solta Medical, a division of Valeant Pharmaceuticals. He also served at Merz Aesthetics as the Vice President & U.S. Head of Aesthetics & OTC, and as Vice President, Global Marketing and Business Development at Obagi Medical, building that company into the leading physician-dispensed skin care brand during his tenure.

'We have assembled an A-team of topical skincare professionals and are very proud of how far we have come in such a short time. I am really excited about the future. All the hard work of this amazing team is definitely paying off,' says Ms. Goostree.

► **Alastin is exclusively available through leading physicians and select medical spas across the U.S. Practices carrying the line are listed on the Alastin website at: [www.alastin.com](http://www.alastin.com)**

Are Your Procedures  
Running at **Full Power**?



# Power Up.

## Regenerating Skin Nectar with TriHex Technology®

Formulated for pre and post-procedure skin.<sup>1,2,3</sup>

- » MAXIMIZE Procedure Results
- » OPTIMIZE Skin Regeneration
- » ENHANCE Patient Experience



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Reference 1: Widgerow AD, Fabi SG, Palestine RF, et al. Extracellular matrix modulation: optimizing skin care and rejuvenation procedures. J Drugs Dermatol. 2016;15(4)(suppl):s63-s71.  
2. Robinson DM, Frulla, AP Randomized, Split-Face/Décolleté Comparative Trial of Procedure Enhancement System for Fractional non-Ablative Laser Resurfacing Treatment J Drugs Dermatol. 2017;16(7):707-710.