



**AnteAGE MD<sup>®</sup>**  
Growth Factors & Cytokines

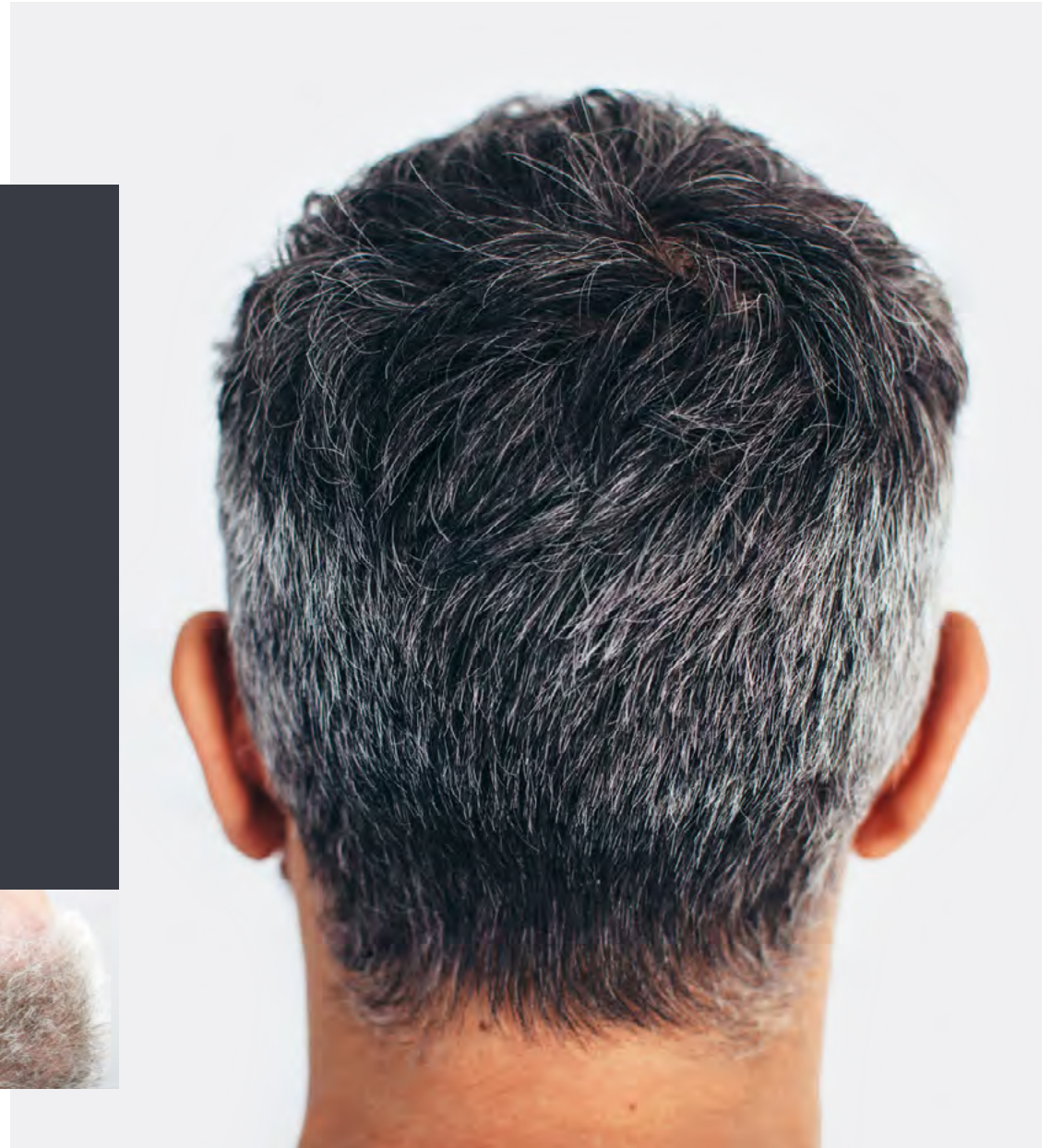
**HAIR SYSTEM**

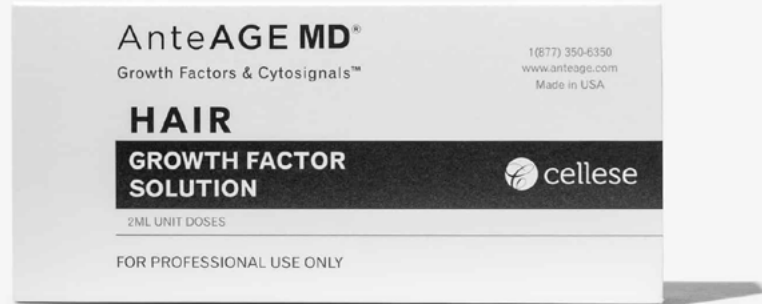


Want to Grow Hair?  
**We can help.**

Hair Regeneration is one of the fastest growing, most exciting fields in aesthetics. Our team of experts can help you start providing treatments without expensive devices or invasive procedures.

**Contact Us Today.**





ANTEAGE MD®

# Hair Growth Factor Solution

(five 2ml treatment vials)

AnteAGE MD® Hair Growth Factor Solution incorporates recent advances in hair follicle science. Specialized techniques influence bone marrow mesenchymal stem cell cultures to produce conditioned media focused on hair growth (Wnt -1a pathway) while twelve bio-identical growth factors and cytokines, each with proven efficacy in hair follicle stimulation, are added to make this the most scientifically advanced product of its type.

Can be used in conjunction with other traditional treatments, including PRP.

## INGREDIENTS :

Water (Aqua), Human Bone Marrow Stem Cell Conditioned Media, Benzyl Alcohol, Dehydroacetic Acid, Hyaluronic Acid, IGF-1 (sh-Oligopeptide-2), HGF (sh-Polypeptide-62), TGF-b3 (sh-Polypeptide-5), bFGF (sh-Polypeptide-1), KGF (sh-Polypeptide-3), SCF (sh-Polypeptide-4), KGF-2 (sh-Polypeptide-10), CSF-1 (sh-Polypeptide-73), PDGF-A (sh-Polypeptide-8), EPO (sh-Polypeptide-72), Noggin (sh-Polypeptide-13), CG-VEGF (sh-Polypeptide-9)

## HAIR GROWTH FACTOR SOLUTION

### Key Ingredients:

---

#### WNT-1A TREATED BONE MARROW MESENCHYMAL STEM CYTOKINES:

Physiologically balanced bio-signals released upon culture of bone marrow stem cells. Wnt signaling is regulated during hair follicle replication and regeneration, telogen-anagen reentry and follicular environmental modulation. Fine tuning this signaling allows better communication to the target site (follicle) for desired hair growth.

#### HYALURONIC ACID:

Excellent gliding agent; humectant; native to the skin; supports ECM.

#### RECOMBINANT INSULIN-LIKE GROWTH FACTOR 1 (IGF-1):

This is the major mediator of growth hormone stimulated somatic growth and mediator of GH-independent anabolic responses.

#### RECOMBINANT INSULIN-LIKE GROWTH FACTOR 2 (IGF-2):

This is the major mediator of growth hormone stimulated somatic growth and mediator of GH-independent anabolic responses.

#### ACIDIC FIBROBLAST GROWTH FACTOR (FGF-1):

Stimulates hair growth by b-Catenin expression and inducing the anagen phase in resting hair follicles.

#### BASIC FIBROBLAST GROWTH FACTOR (FGF-2):

Stimulates hair growth by b-Catenin expression and inducing the anagen phase in resting hair follicles.

#### KERATINOCYTE GROWTH FACTOR (KGF):

Binds to the KGF receptor to stimulate hair growth. Stimulates epithelial cell proliferation, differentiation, and migration and promotes a number of cell protective mechanisms.

#### KERATINOCYTE GROWTH FACTOR 2 (KGF-2):

Binds to the KGF receptor to stimulate hair growth. Stimulates epithelial cell proliferation, differentiation, and migration and promotes a number of cell protective mechanisms.

#### STEM CELL FACTOR (SCF):

Expression of stem cell factor is necessary for the maintenance of differentiated melanocytes and for hair pigmentation.

#### COLONY STIMULATING FACTOR 1 (CSF-1):

Immunomodulatory cytokine that regulates cell proliferation and differentiation, and may play an important role in regulating hair growth.

#### PLATELET DERIVED GROWTH FACTOR ALPHA (PDGF-A):

Plays a role in stimulating the proliferation of dermal mesenchymal cells that contribute to the formation of the dermal papillae.

#### ERYTHROPOIETIN (EPO):

Promotes hair shaft growth and modulation by stimulating dermal papilla cells.

#### NOGGIN (NOG):

Cellular signaling required for induction of the hair follicle growth phase (Anagen).

#### VASCULAR ENDOTHELIAL GROWTH FACTOR A (VEGF):

Strongest regulator of physiological angiogenesis. Induces proliferation of human hair follicle dermal papilla cells.

#### C3PIPA:

Controls Janus kinase signal transducer and activator of transcription (JAK-STAT). Induces rapid onset of anagen and subsequent hair growth.



ANTEAGE®

## Home Hair System (30ml + plus devices)

The AnteAGE® Home Hair System is a breakthrough in the promotion of natural, healthy hair growth - without surgery or hormonal side effects. The system contains AnteAGE® Hair Serum that works to help awaken the sleeping stem cells inside the hair follicle and return them to a more youthful and active growth pattern. The application of Hair Serum is paired with a handheld dermal needling device (.25mm stamp) and thickening brush to enhance product penetration and follicle stimulation.

The AnteAGE® Hair System was designed to be applied up to five times each week and in between professional treatments.

### HAIR SERUM INGREDIENTS :

Water (Aqua), Human Bone Marrow Stem Cell Conditioned Media, Polysorbate 20, Cistanche Tubulosa Extract, Carthamus Tinctorius (Safflower) Seedcake Extract, Laminaria Japonica Extract, Ecklonia Cava Extract, Eclipta Prostrata Extract, Eucalyptus Globulus Leaf Extract, Forsythia Suspensa Fruit Extract, Malva Verticillata Flower/Leaf/Stem Extract, Phyllanthus Niruri Extract, Polygonum Multiflorum Extract, Pueraria Thunbergiana Root Extract, Porphyra Columbina Extract, Oryza Sativa (Rice) Bran Extract, Rosmarinus Officinalis (Rosemary) Extract, Sanguisorba Officinalis Root Extract, Sargassum Muticum Extract, Thuja Orientalis Extract, Sophora Flavescens Root Extract, Acanthopanax Koreanum Extract, Angelica Polymorpha Sinensis Root Extract, Adiantum Capillus-Veneris Leaf Extract, Chlamydomonas Reinhardtii Extract, Panax Ginseng Root Extract, Adenosine, Tocopheryl Acetate, Hyaluronic Acid, Caffeine, Baicalin, Quercetin, Carnitine, Benzyl Alcohol, Dehydroacetic Acid, aFGF (sh-Polypeptide-11), bFGF (sh-Polypeptide-1), CSF1 (sh-Polypeptide-73), EPO (sh-Polypeptide-72), IGF-1 (sh-Oligopeptide-2), IGF-2 (sh-Polypeptide-31), KGF (sh-Polypeptide-3), KGF-2 (sh-Polypeptide-10), Noggin (sh-Polypeptide-13), PDGF (sh-Polypeptide-8), SCF (sh-Polypeptide-4), VEGFA (sh-Polypeptide-9), Cucurbitacin B

## HOME HAIR SYSTEM

### Key Ingredients:

---

#### WNT1 BONE MARROW MESENCHYMAL STEM CYTOKINES:

Physiologically balanced bio-signals released upon culture of bone marrow stem cells. Wnt signaling is regulated during hair follicle replication and regeneration, telogen-anagen reentry and follicular environmental modulation. Fine tuning this signaling allows better communication to the target site (follicle) for desired hair growth.

#### L-CARNITINE:

Amino acid that serves an important function in energy metabolism. Increases energy supply to the anagen hair matrix. Stimulates human scalp hair growth by up regulation of proliferation and down regulation of apoptosis in follicular keratinocytes.

#### CAFFEINE:

Counteracts DHT induced miniaturization of the hair follicle by inhibition of phosphodiesterase. Increase in cAMP levels promotes cell proliferation by stimulating cellular metabolism.

#### BAICALIN:

A botanical flavonoid with multiple hair growth promoting effects in follicular dermal papilla cells. In addition to enhancing WNT signaling, Baicalin induces the expression of IGF-1 and VEGF and speeds the conversion of hair growth cycle from telogen to anagen.

#### ADENOSINE:

A nucleoside that up regulates the expression of VEGF and FGF-7 in dermal papilla cells. Reduces follicular miniaturization and thickens hair.

#### QUERCITIN:

Botanical flavonoid and antioxidant with strong anti-inflammatory properties. Studies show it inhibits PGD2 levels in the scalp, a prostaglandin that is 3x higher in the scalp of men with thinning hair, and reduces inflammation levels.

#### CUCURBITACIN B:

Active constituent found in bitter melon and squash. Terpene derivative shown to interfere with the production of a metabolic by-product of testosterone known as DHT (dihydrotestosterone). Elevated levels of DHT contribute to follicular miniaturization. This isolated terpene has been shown to directly

inhibit the Jak-STAT cell signaling pathway. Research has shown that pharmacological inhibition of this intracellular pathway promotes rapid hair regrowth by triggering follicular anagen entry; with a synergistic activation of the master Wnt pathway.

#### ROSEMARY EXTRACT:

Active constituents in Rosemary include rosmarinic acid, ursolic acid, and 12-methoxycarnosic acid (12-MCA). These are shown to have direct anti-androgenic and anti-inflammatory activity, with a significant inhibitory effect on 5-alpha reductase. Rosemary increases localized circulation within the scalp, bringing vital nutrients to nutrient-starved follicles.

#### POLYGONUMMULTIFLORUM EXTRACT:

An herb used in traditional Chinese medicine with known pharmacological activity including immunomodulating, anti-inflammatory, and anti-aging. Active constituents include 2,3,5,4'-tetrahydroxystilbene-2-O-b-d-glucoside (THSG), which has been shown to have a melanogenesis-stimulating effect in follicular melanocytes, leading to the potential darkening of hair, while torachryson-8-O-b-d-glucoside induces a strong proliferation of dermal papilla cells while increasing the hair fiber length in follicles. An increase in fibroblast growth factor-7 (FGF-7), sonic hedgehog, and B-catenin pathways promote rapid hair regrowth and rapid introduction into the anagen growth phase.

#### PANAX GINSENG EXTRACT:

A popular herb in both eastern and western cultures with pharmacological effects including anti-aging, immunoregulatory, lipid-regulating, and wound healing activity. The most pharmacologically active constituent in Ginseng is Ginsenoside. Studies have shown that this molecule upregulates the expression of vascular endothelial growth factor (VEGF) in human dermal papilla cells within the follicles, leading to an increased nutrient supply while also protecting these cells from premature death, or apoptosis.

#### ECLIPTA PROSTRATA EXTRACT:

An annual plant widely used in traditional Asian medicine with known antioxidant and anti-inflammatory properties. Its hair growth promoting effects are due to an upregulation of fibroblast growth factor-7 (FGF-7), promoting the induction and elongation of the active anagen phase of growth. In addition, this botanical has shown to stimulate follicular keratinocyte proliferation while delaying terminal differentiation of the dermal papilla cells by downregulating transforming growth factor beta-1 (TGFb-1), a fibrotic promoting protein that inhibits normal follicular development. Promotion of melanogenesis in the follicle can also lead to hair darkening.

AnteAGE MD® Hair Solution can be used on it's own with a Microneedling or other energy device or used alongside PRP treatments.

### How to incorporate AnteAGE Hair to your in-office PRP Treatments?

- ◆ Apply Hair Solution to scalp after PRP
- ◆ Cycle treatments between PRP and AnteAGE MD® Hair Microneedling every other week

**Contact Us Today.**





## Bringing the Best Chance of Success to a Topical Treatment

Regardless of which modality you use in-office, send every patient home with **AnteAGE MD® Home Hair System**. Applying growth factors topically in between professional treatments will guarantee the best results for every hair regrowth journey.

AnteAGE MD® Home Hair System is the only product of its kind, scientifically formulated to encourage new, lasting hair growth.

**100%** Noticed New Hair Growth

**92%** Saw Dramatic Improvements in Hair Quality and Texture



## HAIR REGENERATION

### Protocols: Home Hair System

#### PREP



Client should start with clean hair and scalp before treatment. It is not necessary to wash hair before every treatment but it is important to have a clean scalp before stamping.

#### TIMELINE



For best results pair with in-office hair microneedling every 4 weeks for 3-6 treatments.

#### DURING TREATMENT



Apply a few drops of Hair Serum before bed and either massage in with fingertips or use the Hair Thickening Brush 3 times per week.



Let the Serum absorb as you sleep. The Serum spreads easily so a little goes a long way.

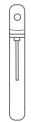


Twice a week, on alternating days, apply a few drops of Hair Serum to the treatment area of the scalp and stamp in lightly using the Microchanneling Stamp.



Use in between professional microneedling or PRP treatments to enhance outcomes.

#### TREATMENT NOTES



Always cleanse your devices with alcohol before and after use.



Do not wash hair for 12-24 hours after home treatment.



Use in between in-office treatments.

## HAIR REGENERATION

### Protocols: In-Office Hair Microneedling

#### PREP

Client should have clean hair and scalp before treatment.

#### TIMELINE

In office hair microneedling is recommended every 4 weeks for 3-6 treatments.

#### DURING TREATMENT



Hair and scalp should be clean and free of product before treatment.



Disinfect the area to be treated.



Apply topical analgesic per protocol.



Remove thoroughly with an alcohol solution.



Apply needling solution to treatment areas in sections, needling over immediately until the entire treatment area has been covered.

**1.0-1.5mm**

Needling depths for hair restoration are between 1.0-1.5mm.



Remaining solution can be applied all over treatment area immediately after.

#### TREATMENT NOTES



Do not shampoo or apply anything else to the scalp for 24 hours.

#### POST CARE



48 hours post treatment client should use the AnteAGE Home Hair System in-between in office treatments and for maintenance once treatments are complete.

#### OTHER TREATMENTS



Can combine LED with treatment.



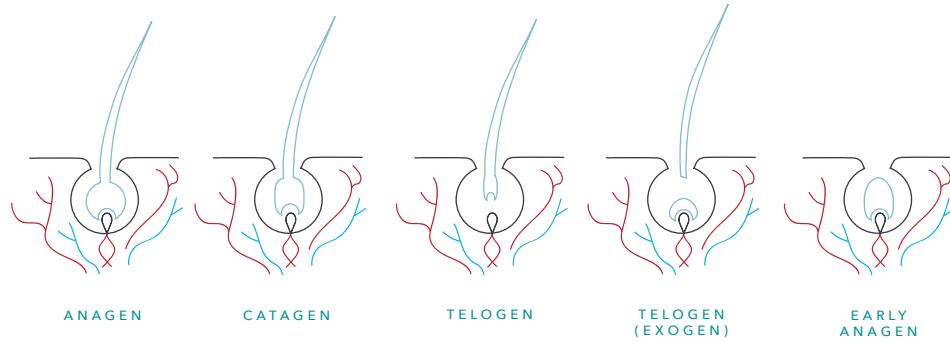
Can be used with PRP treatments.

## HAIR REGENERATION

### Key Technology: WNT Pathway

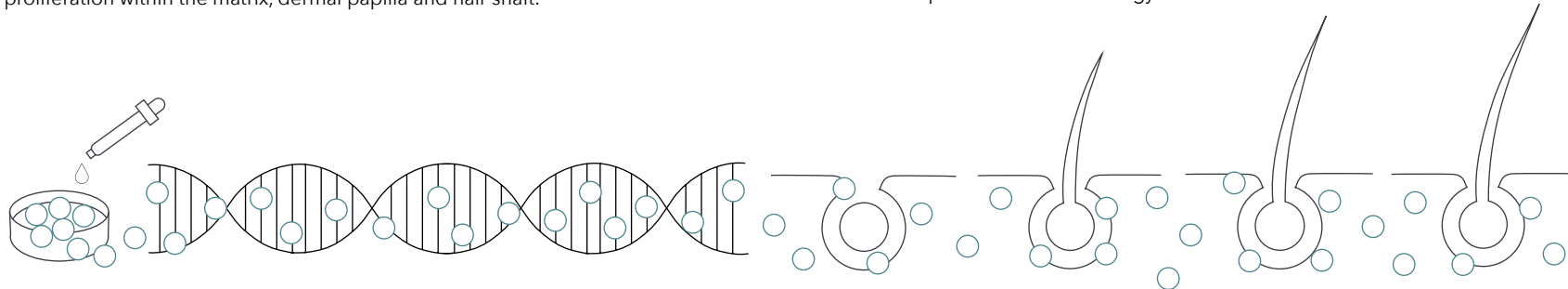
#### HAIR GROWTH SCIENCE

The typical, healthy hair growth process moves through four main stages, as shown below.



#### WNT PATHWAY

Well known in cell biology, the Wnt cellular signaling pathway enables cell surface receptors to influence gene transcription at the nuclear level. This is universally required for cell proliferation, differentiation and migration. Hence, it is integral to hair follicle development and growth. When exposed to prolonged activation, this pathway regenerates follicles into the anagen phase, allowing them to grow larger in size with dramatically enhanced proliferation within the matrix, dermal papilla and hair shaft.



When this process is hormonally disrupted (i.e. Androgenetic Alopecia or AGA), follicles experience a decline in growth factor processes, loss of blood flow, and a decrease in nutrition and growth factor activity. This leads to the miniaturization and eventual death of the hair follicle resulting in hair thinning and loss.

Our products contain specific ingredients that target the causation of follicle miniaturization in order to hack your hair growth cycle into being back on track. Two of the main technologies behind AnteAGE Hair products focus on controlling the Wnt cellular signaling pathway (below) as well as the inhibition of the JAK-STAT pathway (right).

Hair follicle genesis, function and phase transitioning is impossible without Wnt signaling. We manipulate human bone marrow mesenchymal stem cell cultures by employing proprietary specialized techniques that allow us to harvest conditioned media with a “wnt emphasis” - allowing us to kick start the growing phase with our targeted products and technology.

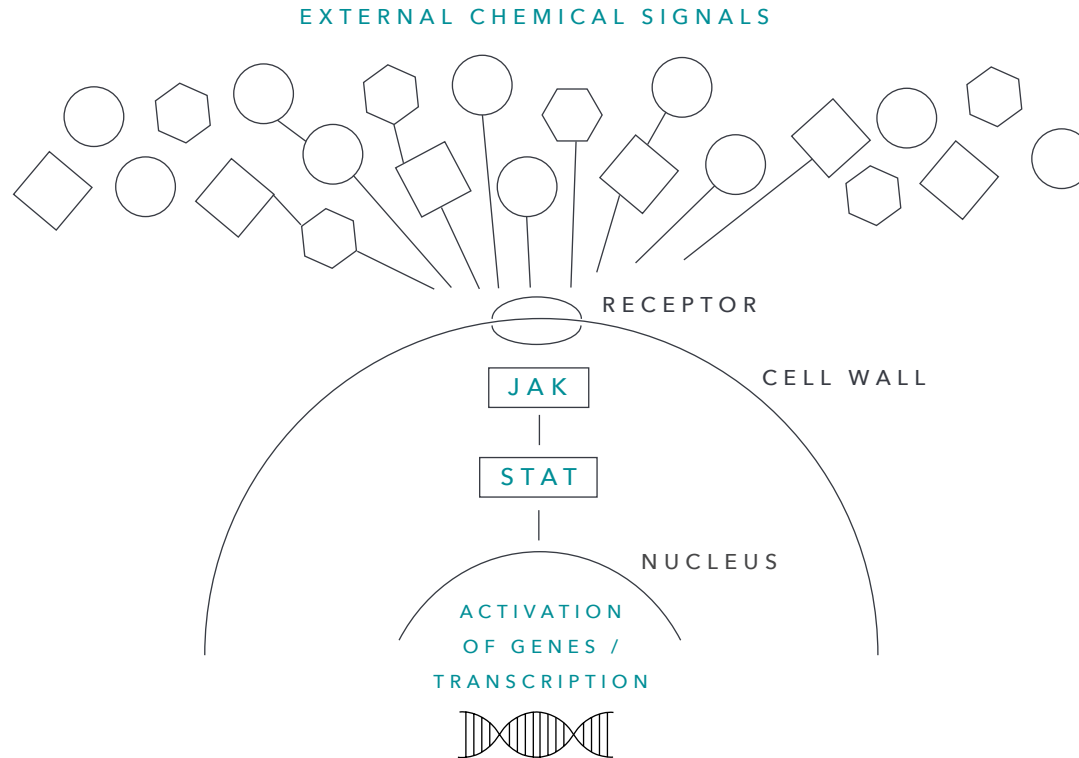
## HAIR REGENERATION

### Key Technology: JAK STAT

#### JAK STAT PATHWAY

The JAK-STAT pathway allows for external chemical information (such as hormones) to be communicated to the nucleus of a cell. This information results in the activation of genes through a process called transcription (or the instructions for our body to make new cells).

Our technology disrupts these instructions by using patented ingredients that have been shown to directly inhibit the Jak-STAT cell signaling pathway. Research has shown that inhibition of this pathway promotes rapid hair regrowth by triggering the anagen (growth) phase of a follicle by inhibiting the instructions from hormones such as DHT, allowing hair to remain in the growth phase much longer than before.



# HAIR REGENERATION

## Clinical Results

AFTER EIGHT WEEKS:



Products Used:



HAIR MICRONEEDLING



HAIR SYSTEM

AFTER EIGHT WEEKS:



Products Used:

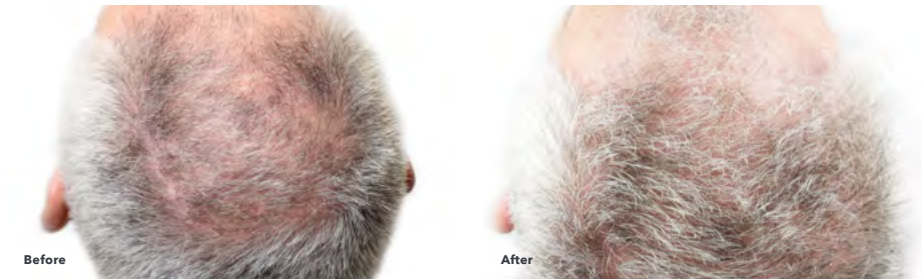


HAIR MICRONEEDLING



HAIR SYSTEM

AFTER EIGHT WEEKS:



Products Used:



HAIR MICRONEEDLING



HAIR SYSTEM

AFTER EIGHT WEEKS:



Products Used:



HAIR MICRONEEDLING



HAIR SYSTEM

