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Redensyl®

The hair growth galvanizer

Hair loss Market in Numbers

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45 million

Men suffering from
hair loss in India

35 million

Men suffering from
hair loss in the USA

21 million

Women suffering from
hair loss in the USA

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6,200\$

Average cost of one hair transplantation surgery in 2012 ¹

47%

Hair loss sufferers would spend their life savings to regain a full head of hair ¹

Inspired from Regenerative Medicine

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How does your body repairs itself????

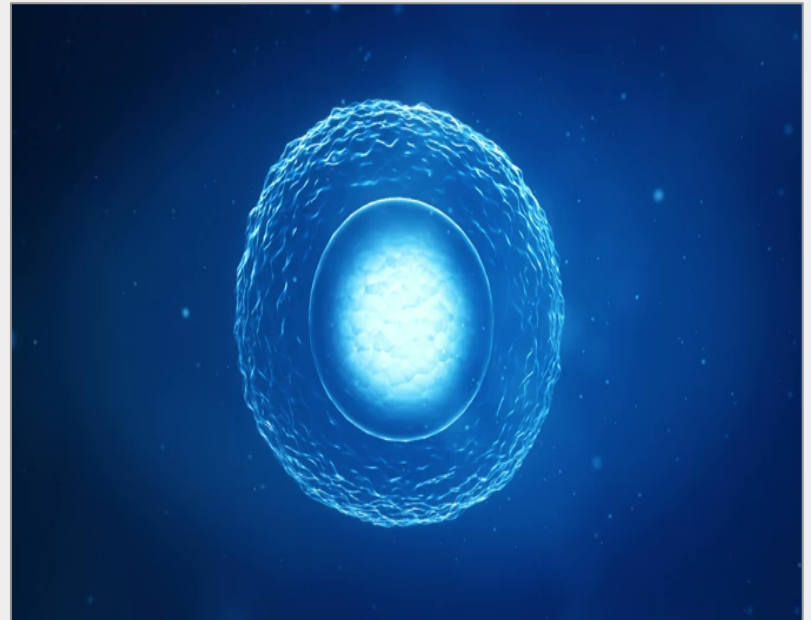
Thanks to stem cells

Human stem cells enable our body to self repair itself.

Stem cell research is the **Holly Grail for Eternal Youth** (stem cells enable the creation and reparation of new organs).

More than 500 clinical trials have been initiated for human body repairing in 2013 (brain, pancreas, skin, muscles, ...).

Hair follicle stem cells give birth to new hairs on the scalp.



More information on: <http://stemcells.nih.gov>

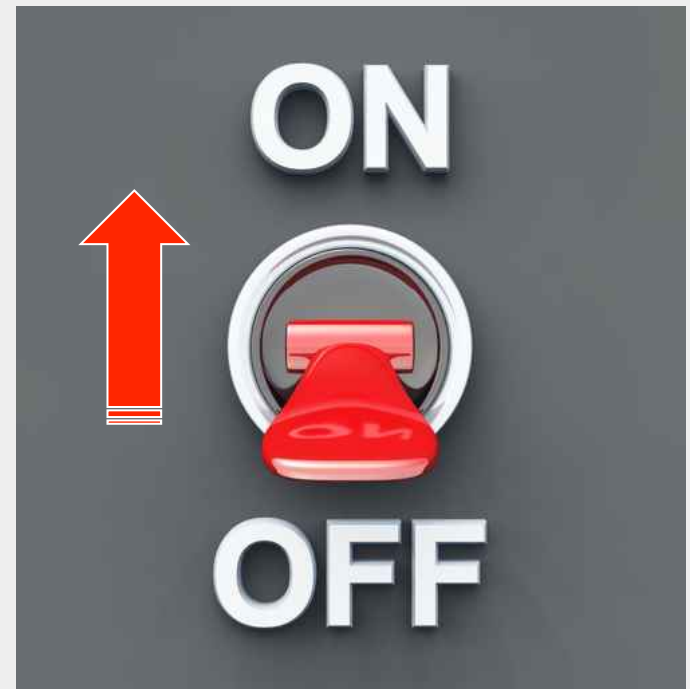
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Redensyl® acts like a switch: it wakes up hair stem cells

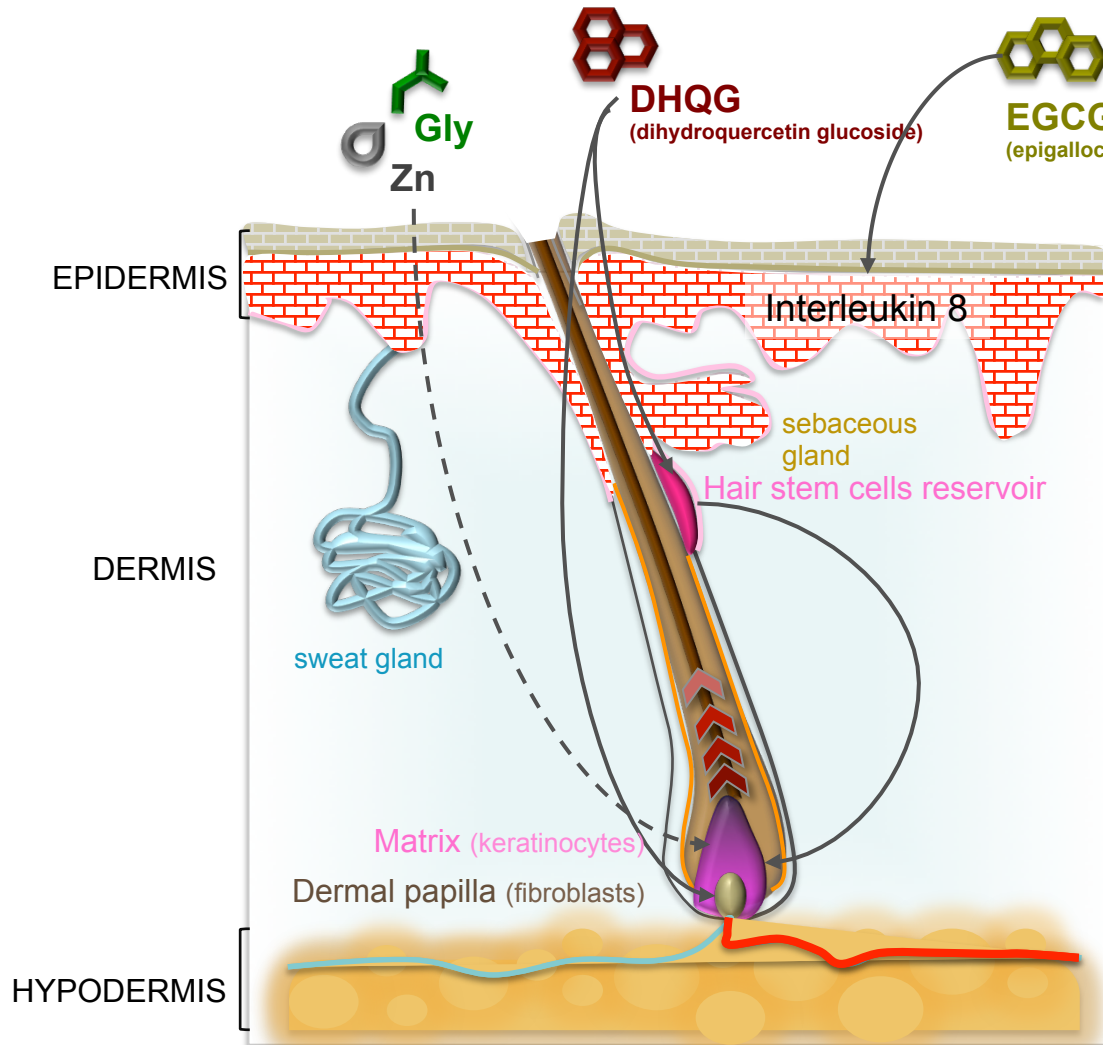
Real hair loss happens when hair stem cells stay asleep in the scalp.

Redensyl® wakes up the hair stem cells to generate a new growth phase of all the hair

REDENSYL® ACTS AS A MOLECULAR SWITCH TO TURN ON HAIR GROWTH AGAIN



Redensyl®: the secret of patented molecules



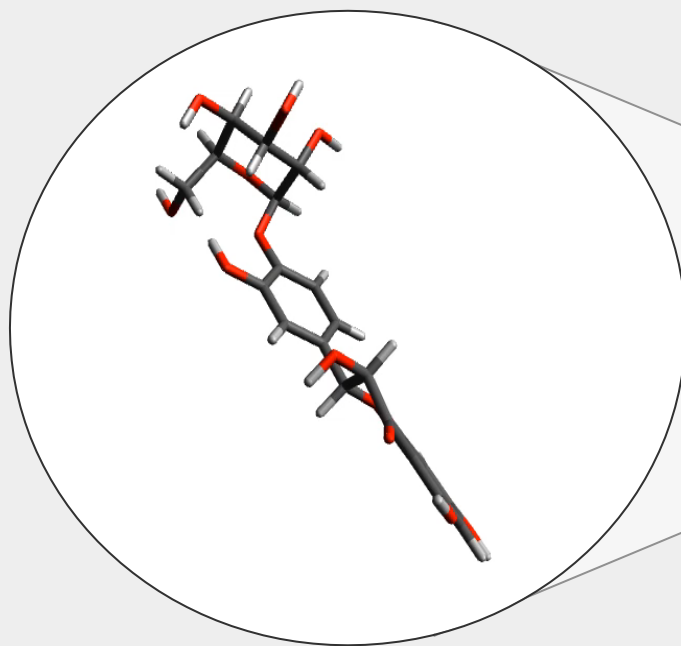
1. The scalp is soothed
to prepare the action of the other molecules

2. Stem cells are woken up
They migrate down to create a new matrix

3. Hair cells are boosted
They are ready to produce a new hair

4. Zinc and Glycine nourish the matrix
and favor a faster hair growth

DHQG: Dihydroquercetin-Glucoside

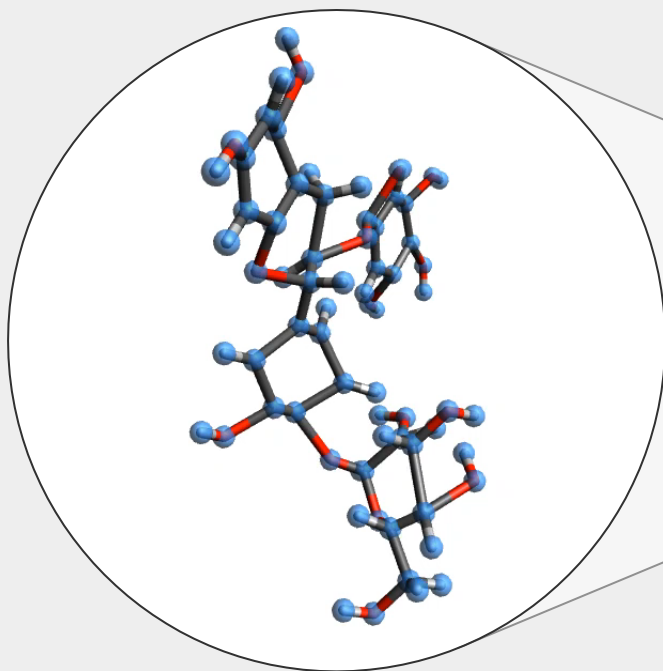


Origin: Larch tree

MW: 466 g/Mol

Biotechnology optimization (glycosylation)

EGCG2: Epigallocatechin-gallate-Glucoside



Origin: Green tea leaves

MW: 604 g/Mol

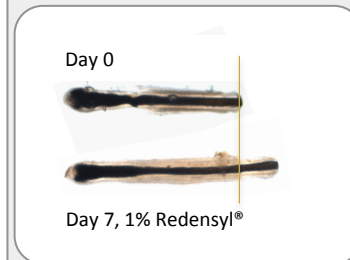
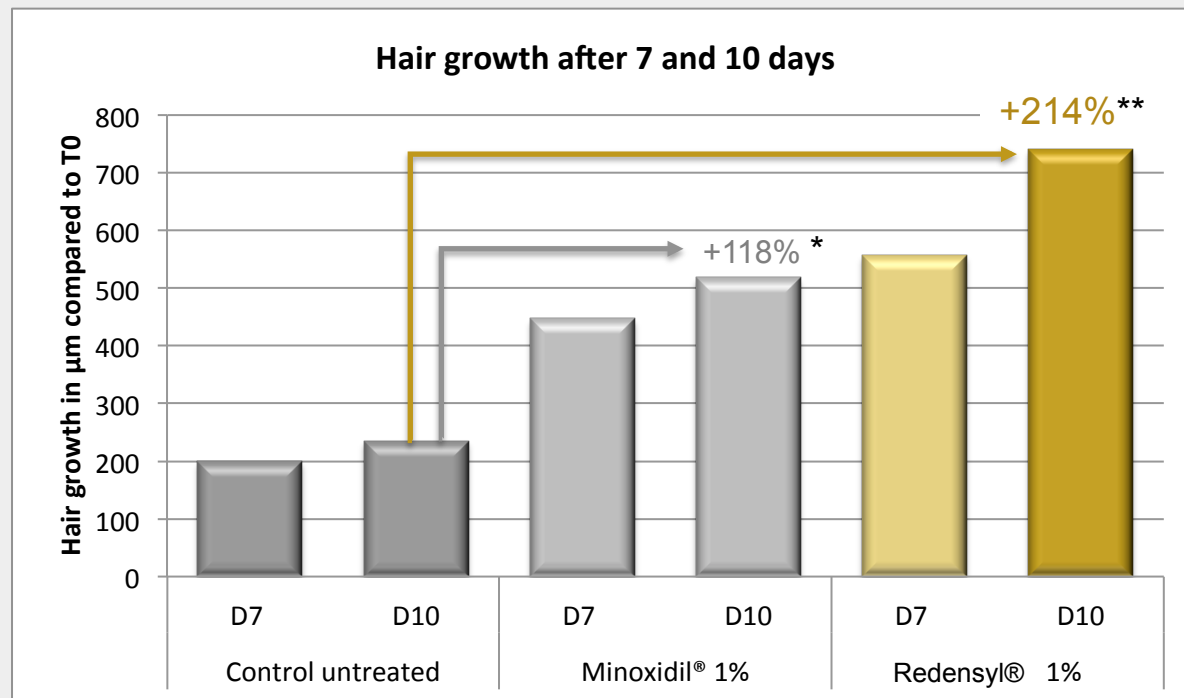
Biotechnology optimization (glycosylation)

2x better results than Minoxidil

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Hair follicles growth test (Philpott test)

Protocol: 24 hair follicles from men suffering from alopecia were maintained alive with either 1% of Minoxidil or 1% of Redensyl® during 10 days. Hair growth was measured in μm at D7 and D10.



* $p < 0.1$, ** $p < 0.001$ compared to untreated, Student t-test

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- Redensyl® increases hair growth by +214% compared to untreated
- Redensyl® shows almost two times better results than Minoxidil, the benchmark reference.

Outstanding clinical results

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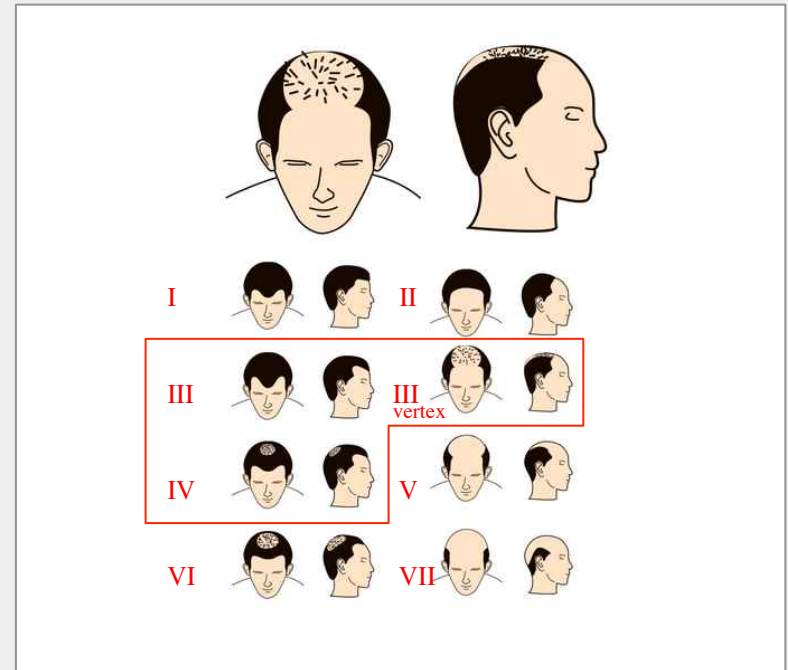
Clinical assessment

VOLUNTEERS

- 26 men aged 18 to 70 years old
- Brown to dark hair
- Qualified for a grade 3 to 4 alopecia (Norwood scale)
- With minimum 150 hair/cm² and 40 telogen hair/cm²

PROTOCOL

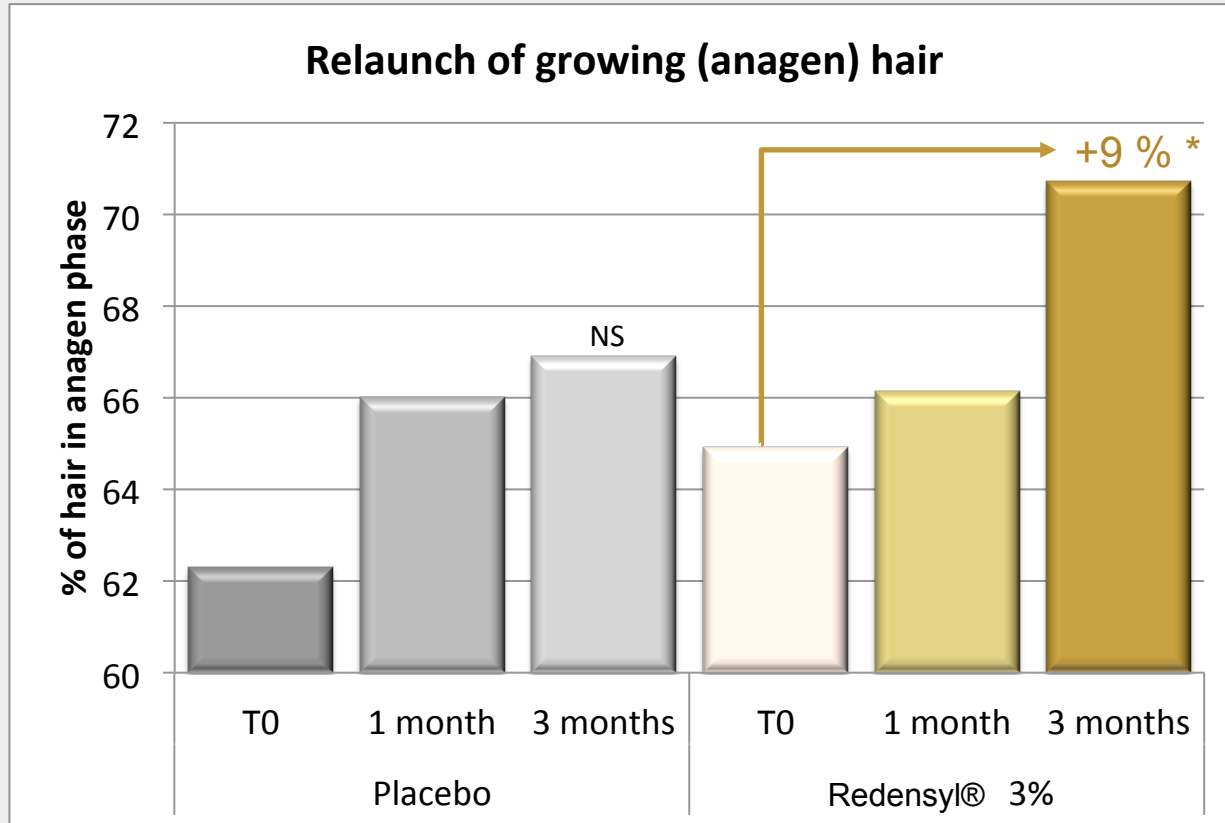
- Double blind clinical trial versus a placebo
- 50% of volunteers received the placebo
- 50% received the formula with 3% Redensyl®
- Applying the formula once a day
- Under the control of a dermatologist.
- Period of the test: autumn



Clinical formula : AQUA, ALCOHOL DENAT., BUTYLENE GLYCOL, GLYCERIN, XANTHAN GUM, DISODIUM EDTA, CITRIC ACID, (+/-) Redensyl® 3%

Increasing growing hair (anagen hair)

Protocol: analysis on the volunteers' scalp of the number of hair in anagen phase



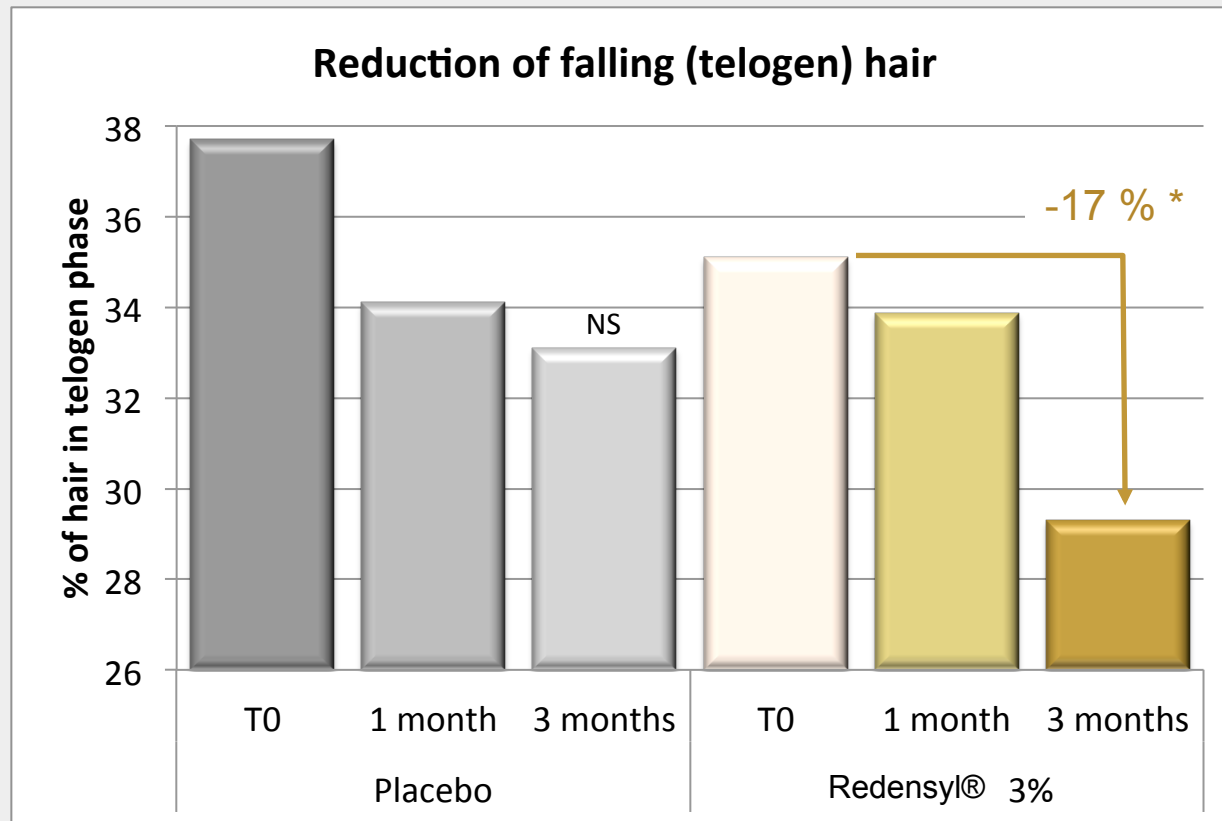
*p<0.01 compared to untreated, Student's t-test

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- Slight non significant placebo effect up to D84 (activation of micro-circulation)
- Redensyl® stimulates by +9% hair in anagen phase

Reduction of hair loss (telogen hair)

Protocol: analysis on the volunteers' scalp of the number of hair in telogen phase



*p<0.01 compared to untreated, Student's t-test

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- Slight non significant placebo effect up to D84 (activation of micro-circulation)
- Redensyl® reduces hair in telogen phase by -17%

Visible results in only 84 days

BEFORE



D84



38 years old



42 years old



BEFORE

46 years old



D84



36 years old



29 years old



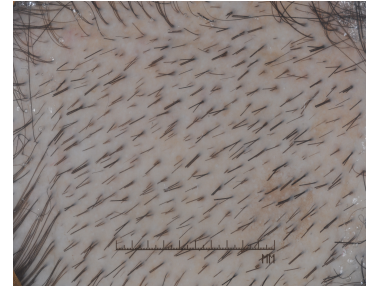
Details - before/after

Criteria	#3
Age	52 years old
% of new anagen hair	+ 10.8%
% of density of hair increase	+ 17%
Number of new hair / cm ²	+ 47 hair/ cm ²
Total number of new hair on the scalp (600 cm ²)	+ 28,200 hair
Number of new hair per month on the scalp	+ 9,400 hair

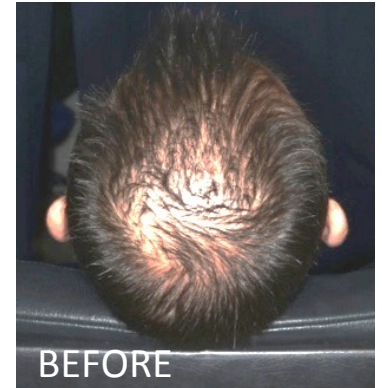
→ Visible redensification of the scalp

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Analysis area - Day 0



Analysis area - Day 84



Summary of Redensyl® clinical performances

Within 84 days on grade 3 to 4 alopecic volunteers:

85% of volunteers showed clinical improvements:

- ✓ +9% of anagen hair
- ✓ -17% of telogen hair
- ✓ +29% of improvement in the anagen/telogen ratio
- ✓ Hair look thicker
- ✓ 71% of buying intention
- ✓ An average +8% increase in hair density
 - ✓ corresponding to +10,000 new hairs
 - ✓ Up to +28,200 new hairs



Uniqueness

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Better results than hair transplantation surgery

- One hair transplantation = +8,064 new hairs
- 65% of the patients undergo a single hair transplantation ¹ for cost reasons
- But up to 3 hair grafts sessions can be needed to get the appropriate hair density ¹
- Redensyl® gives an average:
 - +10,000 new hairs in less than 3 months, with up to
 - +28,200 new hairs



¹ International Society of Hair Restoration Surgery: 2013 Practice Census Results

² Bernstein Medical center www.bernsteinmedical.com/hair-transplant/follicular-unit-transplantation/graft-numbers/

Redensyl® - examples of product opportunities

MEN

- Hair care (thin hair, hair loss, sparse hair)

WOMEN

- Hair care (damaged hair, hair loss, sparse hair)
- Eyelashes growth mascara or primer

HAIR GROWTH TONIC

Hair loss treatment for men

Foam (more easy to apply) which converts into a lotion
Evaporates quickly – no residues

Application **once to twice a day**

HAI® : Hair Actives Inside®

- ✓ Redensyl® 1,5%
- ✓ Bio-vectorized pro-panthenol (DPTA) 1%

Redensifying – Recharging – Reducing hair thinning - Soothing



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ALL DAY HAIR PROTECTION

Women with damaged – thin hair

Spray to apply on hair and scalp

Evaporates quickly – nice fragrance

Application **in the morning** before combing

Hair Beauty Technology:

- ✓ Redensyl® 2%
- ✓ Anti ozone (Unicontrolon) 1%
- ✓ Silicone alternative (Unitamuron) 1%

Protect dyed hair– Prevent hair loss -
Facilitate combing – Reduce static electricity



REDENSIFYING SCALP TREATMENT

Men / women with hair loss

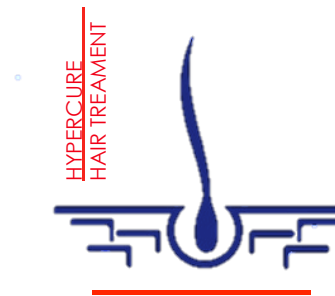
Intensive cure to apply on scalp
Favors the massage of the scalp

Application **everyday**

Hair Care Complex:

- ✓ Redensyl® 3%
- ✓ Bio-vectorized panthenol (DPTA) 1%
- ✓ Sebum control (Unitrienol) 2%

Prevention of hair loss – Soothe scalp –
Regenerate hair roots – Dynamize hair
growth – Prevent oily hair



EYELASH ENHANCER

Women with sparse eyelashes

Mascara primer

Compatible with all type of make up

Application **before your mascara**

- ✓ Redensyl® 3%
- ✓ Long lasting, color enhancer, waterproof booster (Unimer U-1946) 5%

Volumize – Intensify the look – Increase the length and diameter of eyelashes



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Conclusion

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Redensyl®: the cosmetic alternative to hair surgery

- 3 years of fundamental research
- 2 patented molecules (DHQG and EGCG2)
- 1 green chemistry manufacturing process
- 1 full set of genetic analysis to decipher the mode of action
- 1 research collaboration with the world reference laboratory of Dr Philpott
- Pharma like purity >95%
- Perfectly safety at 100%

→ Silver award of the best innovation ingredient in cosmetics 2014

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Redensyl® technical information

INCI :	WATER, GLYCERIN, SODIUM METABISULFITE, GLYCINE, LARIX EUROPAEA WOOD EXTRACT, ZINC CHLORIDE, CAMELLIA SINENSIS LEAF EXTRACT
SUGGESTED RANGE OF USE :	1% to 3%
FORMULATION :	Add at the end of the formulation process under stirring below 50°C. Can be heated for a short time with the oil phase of formulation.
SHELF LIFE :	> 12 MONTHS - STABILITY TESTS ON GOING
STORAGE:	IN A FRIDGE FOR LONG TERM STORAGE IN A FRIDGE ONCE OPEN
COLOR :	CLEAR YELLOW SOLUTION
ODOR :	TYPICAL
SOLUBILITY :	WATER SOLUBLE
PACKAGING :	1KG, 5 KG AND 25KG
OTHER :	SOLVENT FREE (GREEN CHEMISTRY - BIOTECHNOLOGY)
SAFETY PROFILE	PATCH TEST, NEGATIVE AT 100% EYE IRRITATION, NEGATIVE AT 100% AMES TEST, NEGATIVE HRIPT, NEGATIVE AT 100% BIODEGRADABLE



What can we do **for you?**

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