

Redensyl®

The hair growth galvanizer

Hair loss Market in Numbers

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

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

¹ Source : International Society of Hair Restoration Surgery, report of 2013



Inspired from Regenerative Medicine

How does your body repairs itself????

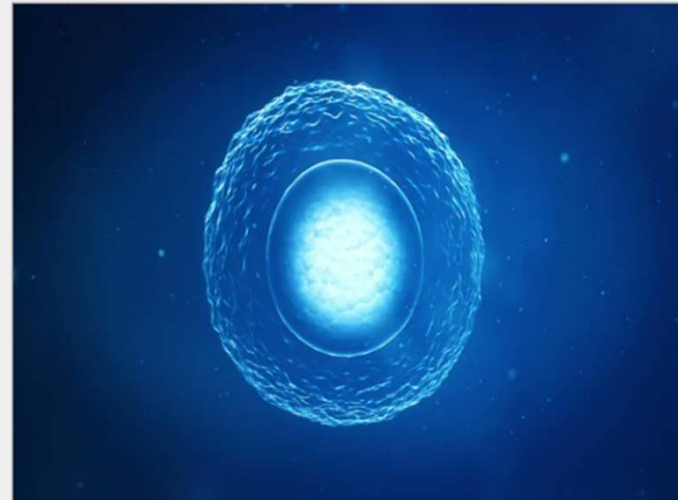
Thanks to stem cells

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>

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

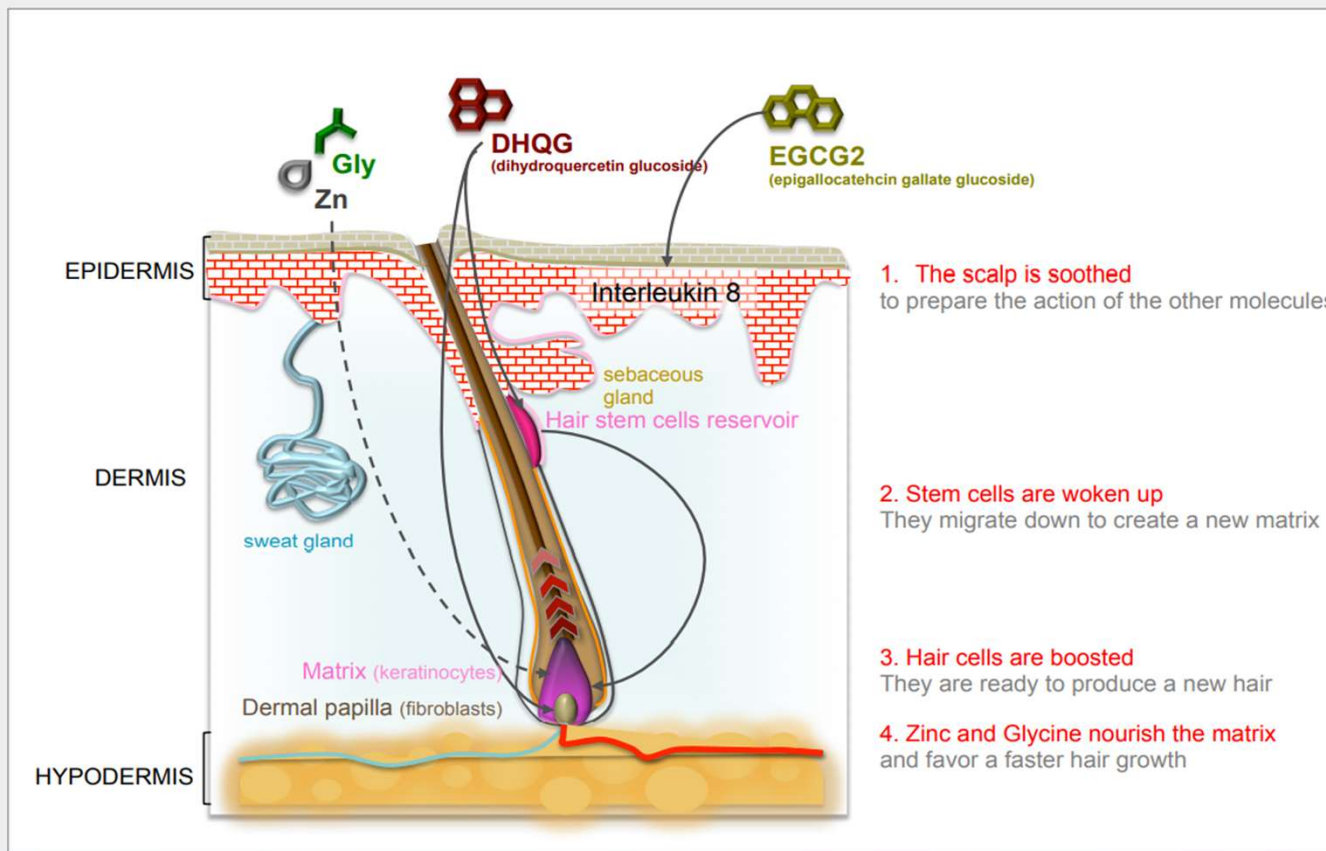
Real hair loss happens when hair stem cells stay asleep in the scalp.

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

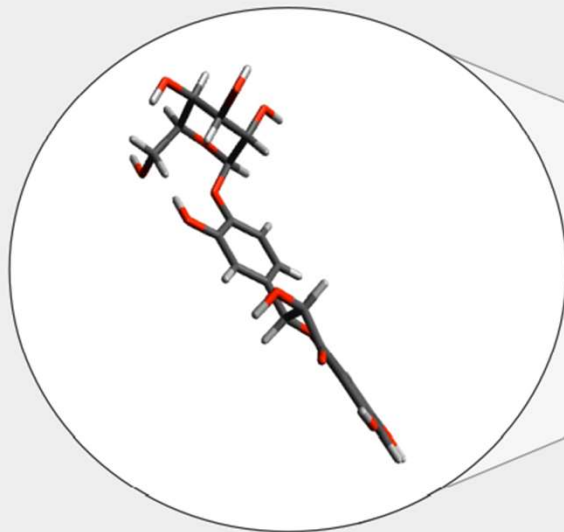
REDENSYL® ACTS AS A MOLECULAR SWITCH TO TURN ON HAIR GROWTH AGAIN



Redensyl®: the secret of patented molecules



DHQG: Dihydroquercetin-Glucoside

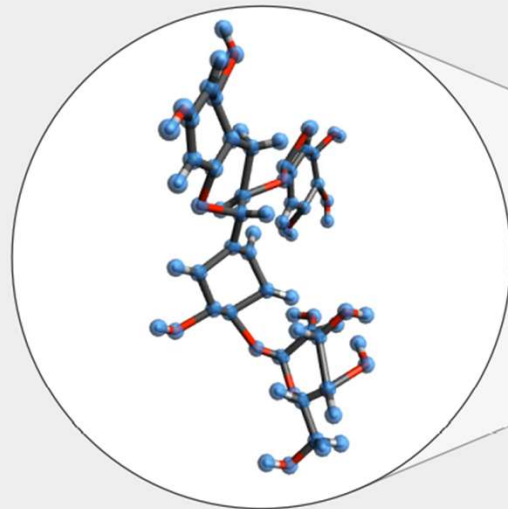


Origin: Larch tree

MW: 466 g/Mol

Biotechnology optimization (glycosylation)

EGCG2: Epigallocatechin-gallate-Glucoside



Origin: Green tea leaves

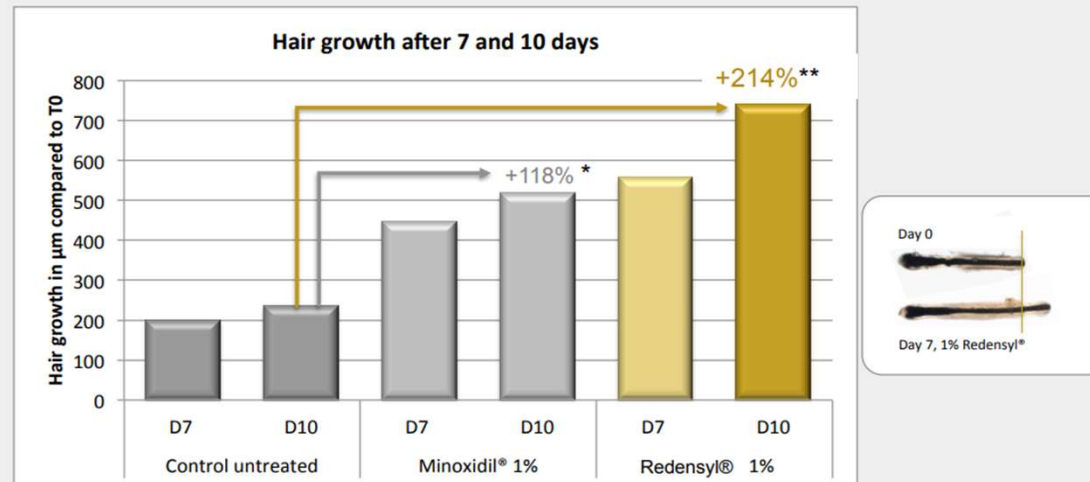
MW: 604 g/Mol

Biotechnology optimization (glycosylation)

2x better results than Minoxidil

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

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

Outstanding clinical results

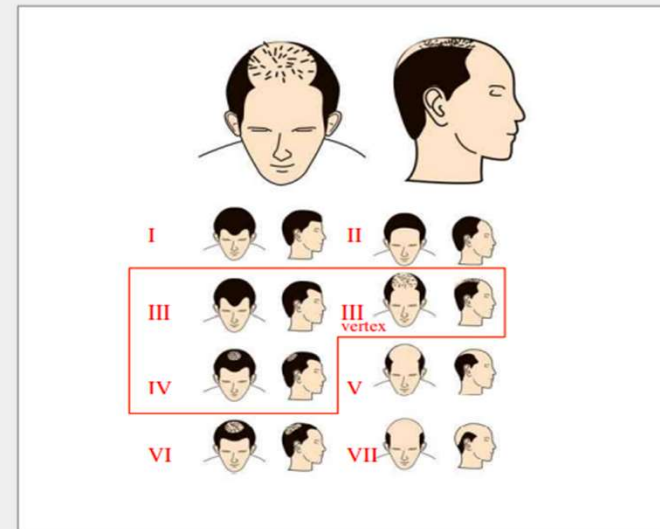
Clinical assessment

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

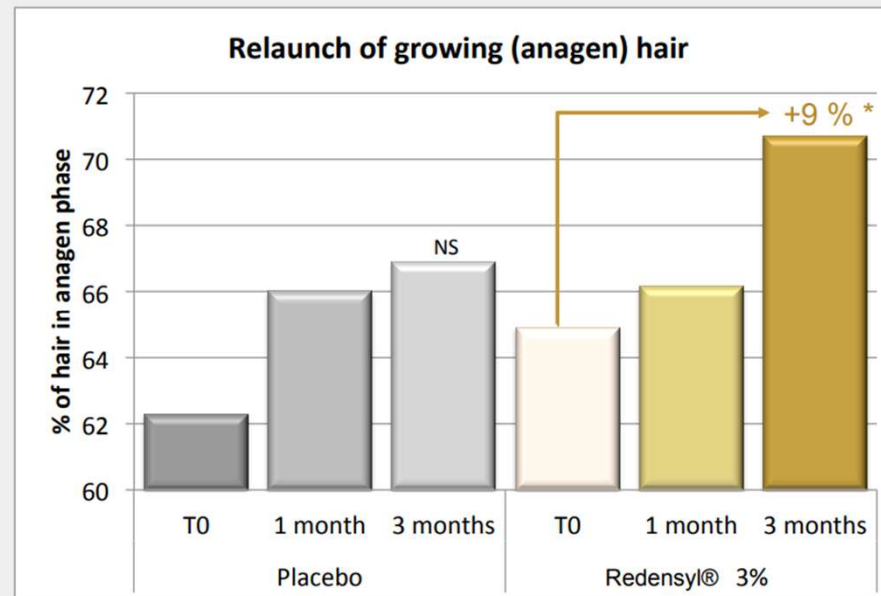
- **Double blind** clinical trial **versus a placebo**
- 50% of volunteers received the placebo
- 50% received the formula with 3% Redensyl®
- **Applying** the formula **once a day**
- Under the **control of a dermatologist.**
- **Period of the test: autumn**



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

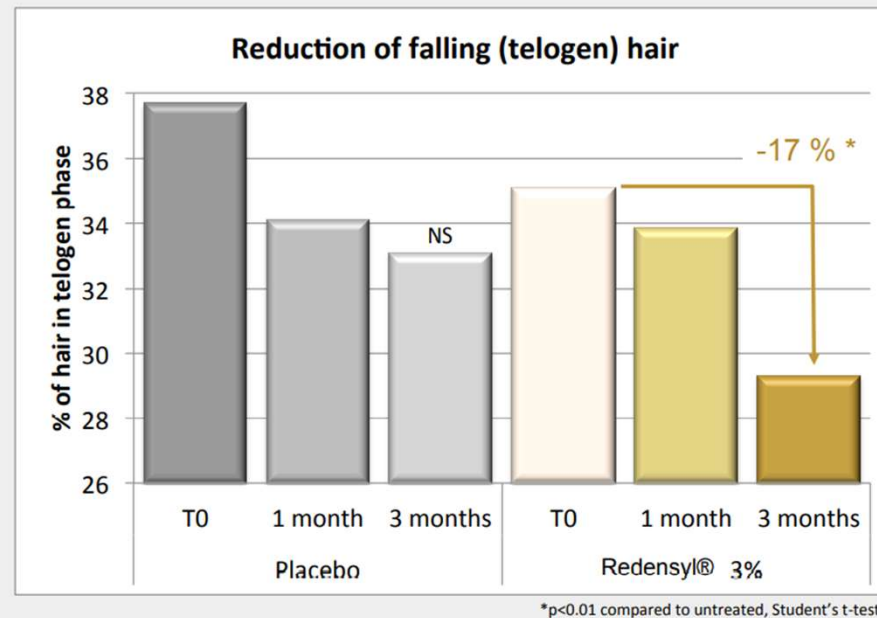


*p<0.01 compared to untreated, Student's t-test

- 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



- 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

52 years old



D84



38 years old



BEFORE

46 years old



D84



36 years old



42 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

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

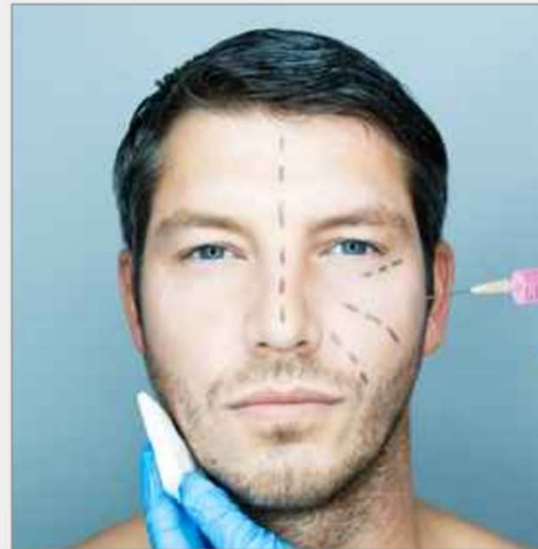
- ✓ An average +8% increase in hair density
 - ✓ corresponding to +10,000 new hairs
 - ✓ Up to +28,200 new hairs



Uniqueness

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®: 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



Redensyl®

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

