

Baicapil™

Stimulates hair growth
and prevents hair loss

CareActives

Hair growth

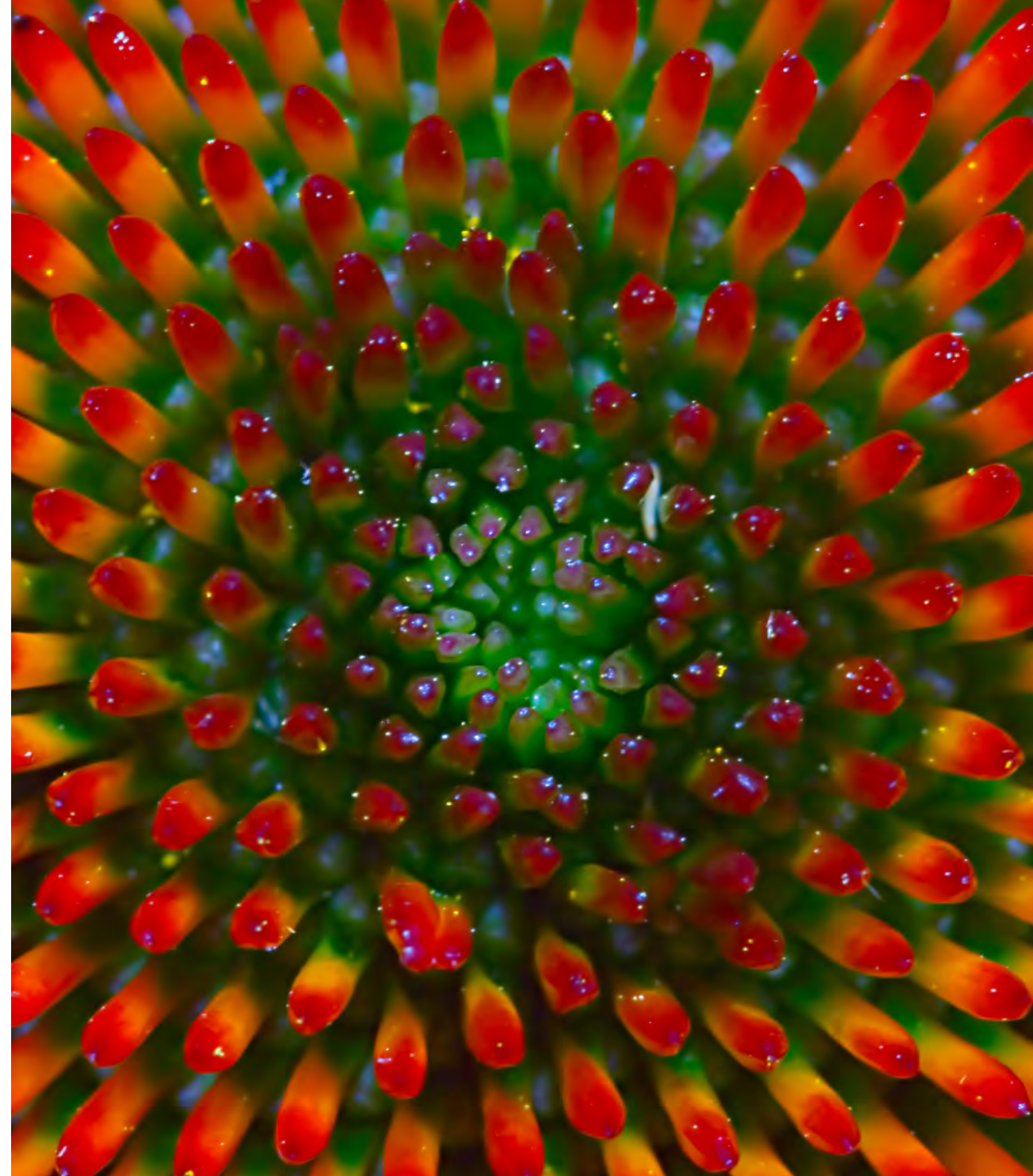
Hair loss decrease

Baicapil™, innovative anti-hair loss active ingredient, counteracts the causes of hair loss:

- Maintains a long anagen and a short telogen phase.
- Gently changes hair cycle from telogen to anagen phase.
- Improves the condition of the follicular cells and its microenvironment, to maintain the balance between anagen and telogen phases.

Baicapil™ is a combination of three botanical active ingredients that acts to visibly combat hair loss, stimulate hair growth and increase its density

Baicapil™ Stimulates hair growth and prevents hair loss



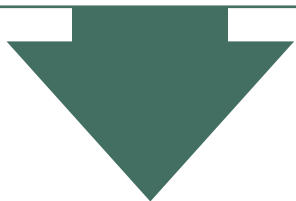
Baicapil™ composition



Scutellaria baicalensis

- Source of baicalin, the active molecule.
- Asian origin, used in traditional Chinese medicine.

**Protects from oxidative damage.
Activates stem cells.
Delays senescence**



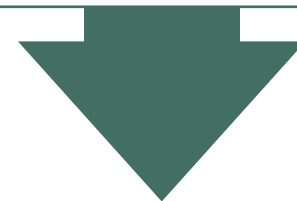
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Soy (*Glycine max.*) and wheat (*Triticum vulgare*) sprouts

- Sprouts are obtained from the seeds of soybean and wheat.
- Rich in reserve substances, such as carbohydrates.

**Increases cell proliferation.
Enhances the metabolic
activity of the cells**



In vitro efficacy

Several tests were conducted to evaluate the in vitro efficacy of Baicapil™:

1. Soy and wheat sprouts: oxygen consumption

- Mitochondrial model.
- Model of human skin fibroblasts.

2. Baicalin: senescence in primary human fibroblasts

- TERT activation.
- Effect on cellular senescence.



In vitro efficacy

Design of the study

Mitochondrial culture

Mitochondrial activity increases as the concentration of sprouts (ppm) is increased.

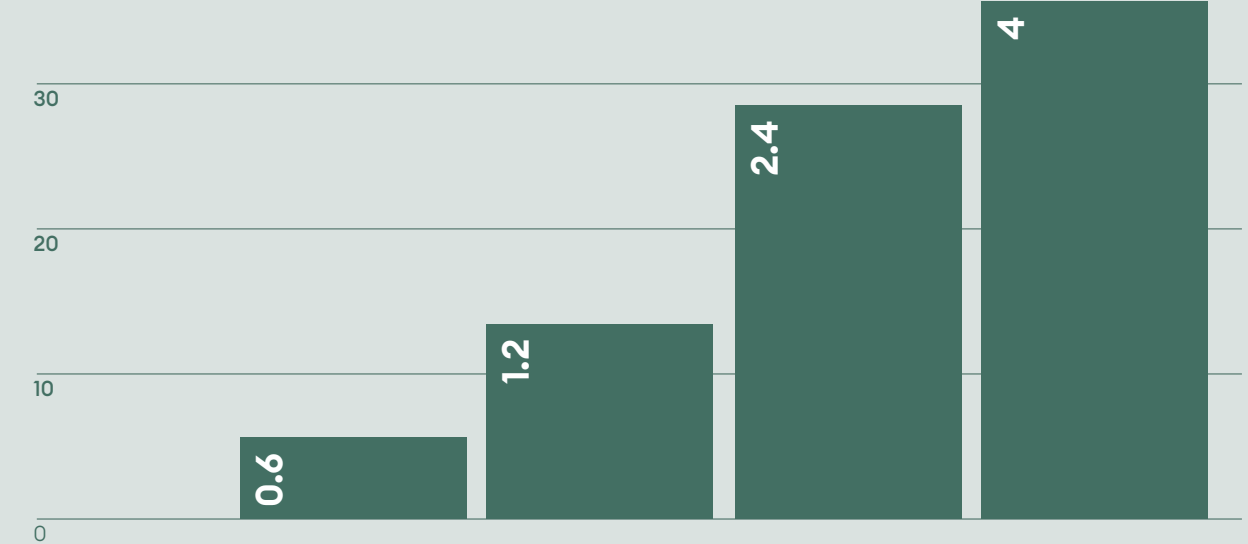
Human skin fibroblasts culture

Mitochondrial activity of fibroblasts increases due to the application of sprouts.

Wheat and soy sprouts enhance cellular activity

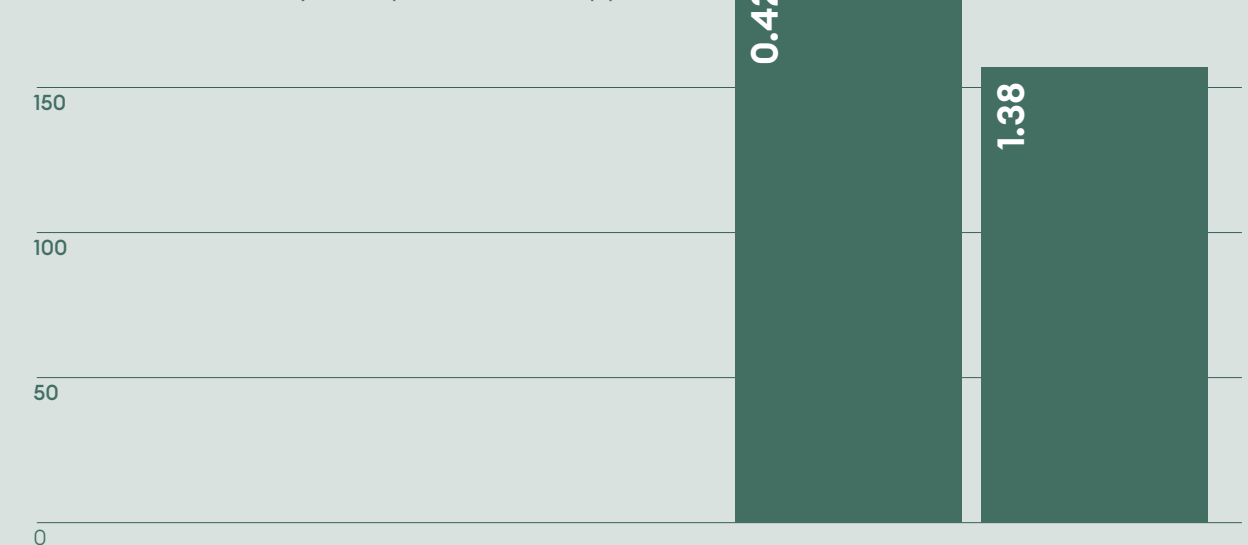
Mitochondria

Mitochondrial activity (%). Sprouts extract (ppm)



Fibroblasts

Mitochondrial activity (%). Sprouts extract (ppm)



Baicalin in vitro efficacy

Senescence

TERT activation

Baicalin activates TERT in primary fibroblasts, after cultivating them during 24h.

*TERT (Telomerase reverse transcriptase) is one of the characteristic proteins of stem cells and progenitor cells, essential for their activation and functioning.

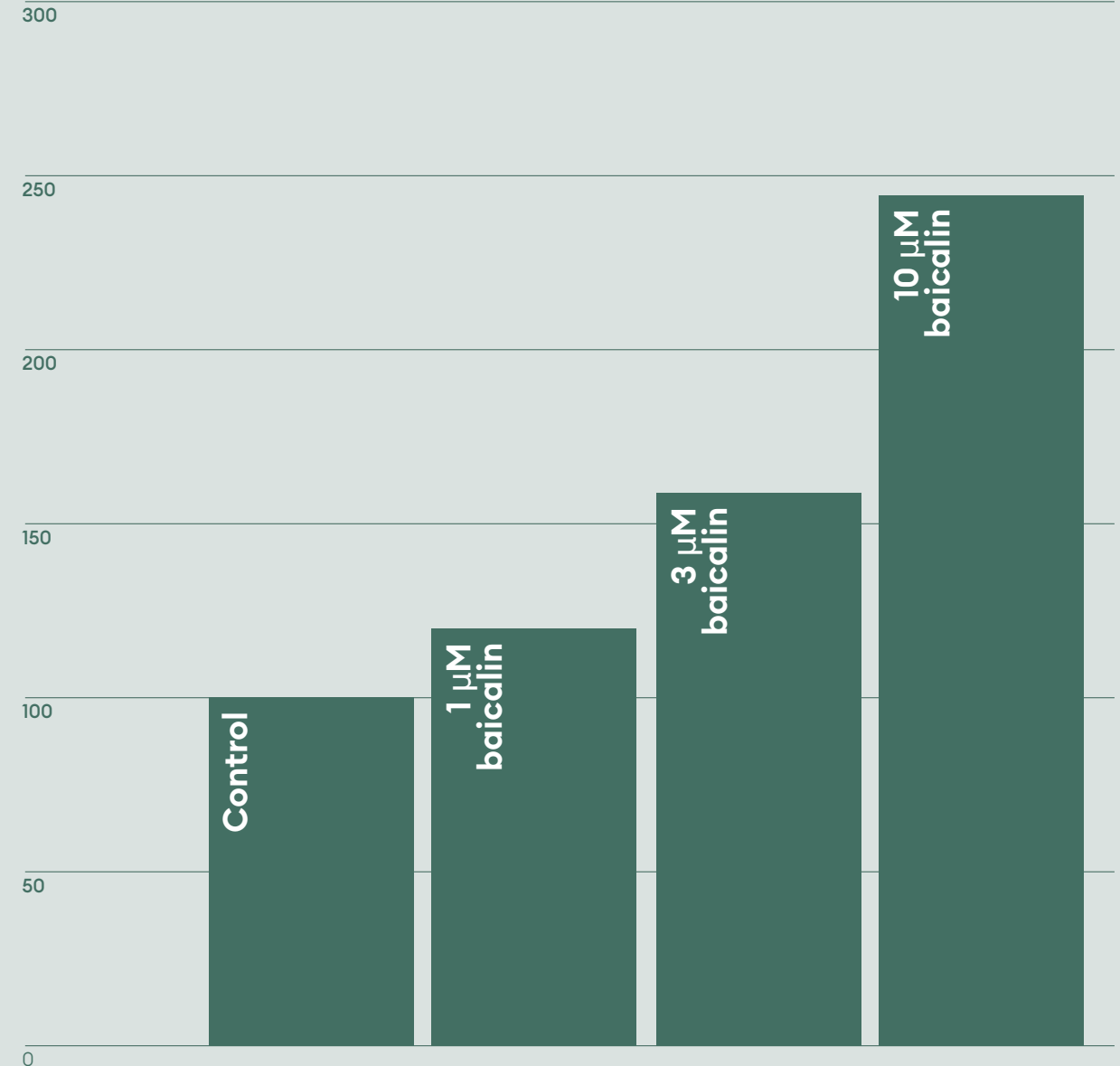
Cellular senescence

Cells have a limited number of duplications. It was shown that baicalin has the ability of delaying senescence of human fibroblasts since it increases their number of duplications by 10%.

Baicapil™ delays cellular senescence

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TERT activation



Baicalin in vitro efficacy

Number of duplications

- In vitro test showed that fibroblasts treated with Baicalin reach 5 additional cell divisions.
- Considering that fibroblasts duplicate around 50 times, this means a 10% more.
- If decline in duplication is 10% every 10 years, this means **RECOVERING 10 YEARS.**



In vivo efficacy

General condition of the hair

Photographs of the scalp.

There are remarkable improvements in hair density after Baicapil™ treatment.

Baicapil™ visibly improves hair quantity and quality



T0



T180

In vivo efficacy

61
volunteers

61 volunteers (men and women) with Mediterranean Caucasian hair, aged 18-60.

30
volunteers

30 volunteers treated with placebo and 31 with Baicapil™ for 6 months.

D0
and D180

The measurements were at D0 and D180.

3%
Baicapil™

Hair lotion containing 3% of Baicapil™ against another lotion without active (placebo).

measured
at D90

Additionally, the test of hair washing and combing was also measured at D90.

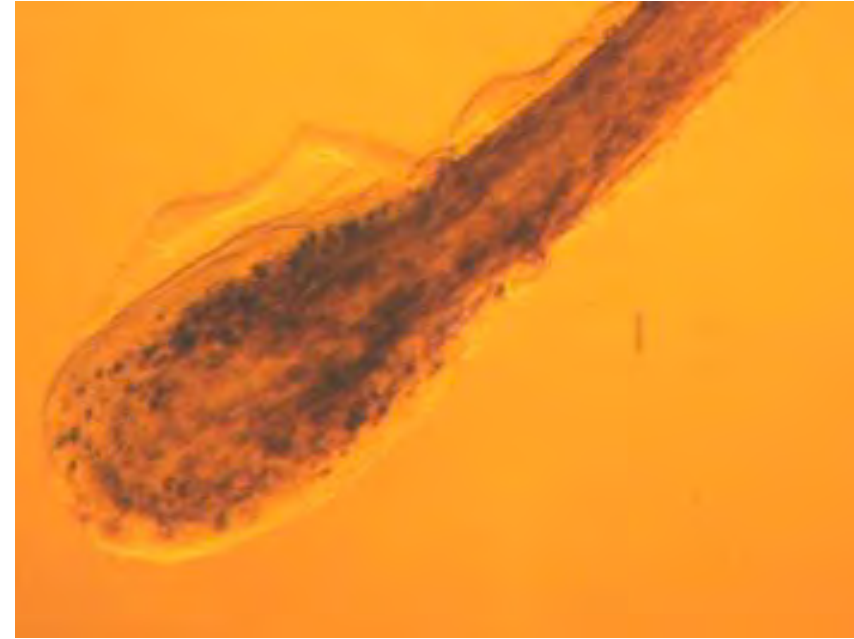
In vivo efficacy

Anagen-telogen ratio

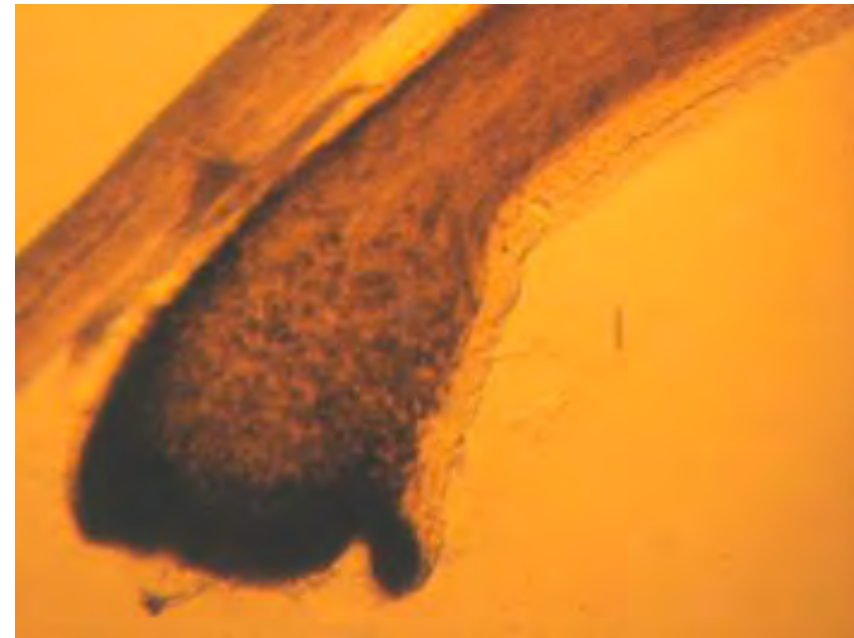
A/T ratio (microscopic study).

The two extracted follicles were in anagen phase, but after treatment with Baicapil™ (T180) we observed:

- Stronger activity in the matrix area.
- A good development of hair sheaths (robust and thickened).
- Larger bulb and thicker hair.



T0



T180

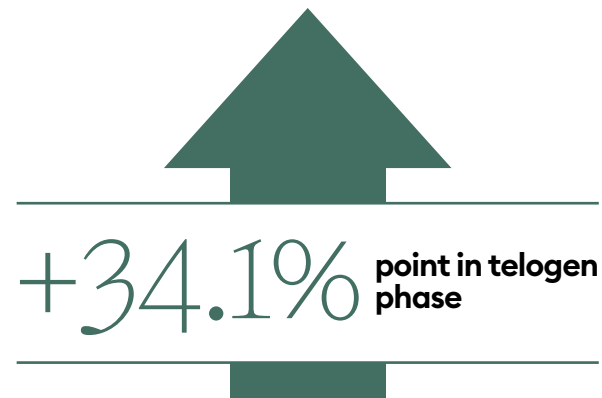
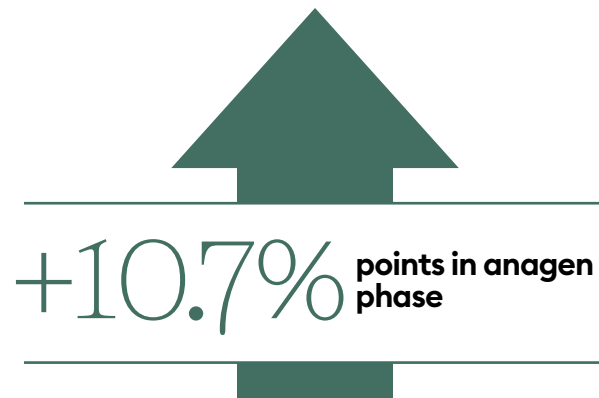
In vivo efficacy

Anagen-telogen ratio

A/T ratio (microscopic study).

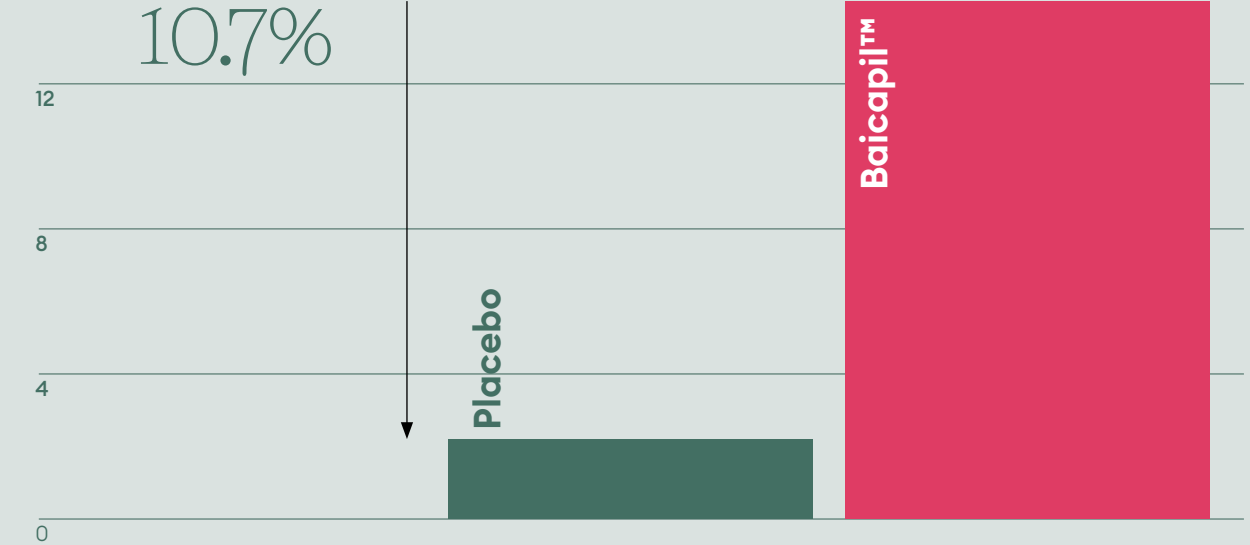
The number of follicles in both phases was determined with Baicapil™ vs. placebo:

- Improvement of 10.7 percentage points in anagen phase (12.7% Baicapil™ vs. 2% placebo).
- Improvement of 34.1 percentage points in telogen phase (-27.2% Baicapil™ vs. 6.9% placebo).

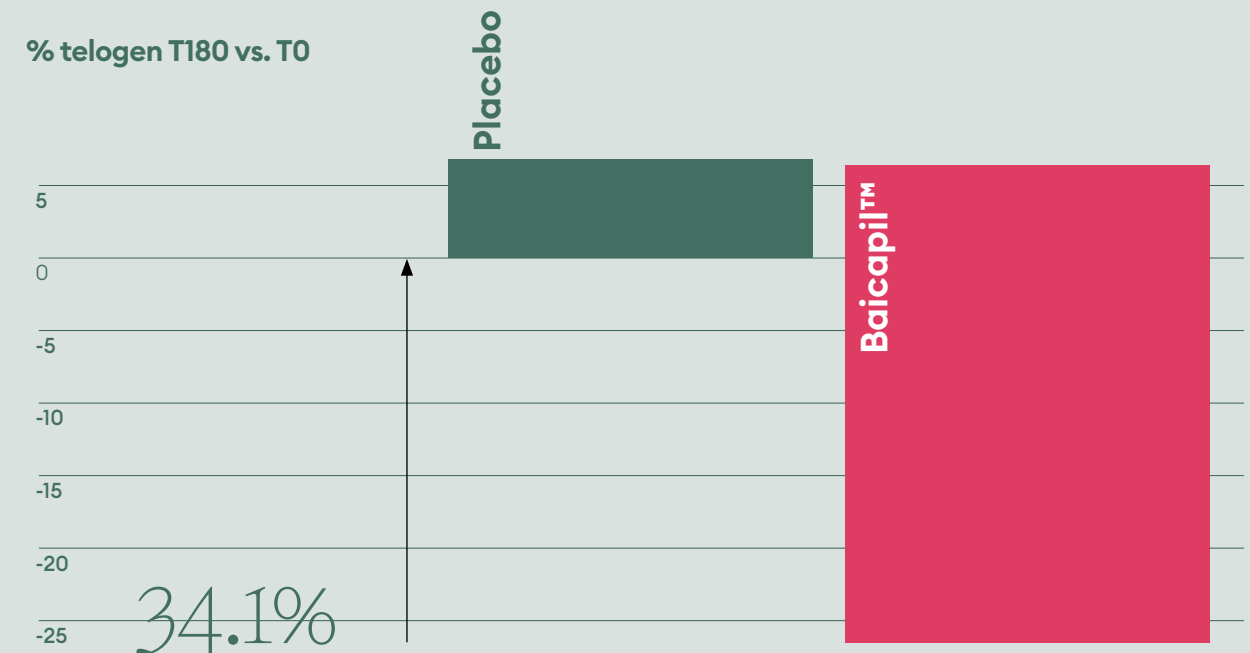


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% anagen T180 vs. T0



% telogen T180 vs. T0



In vivo efficacy

Anagen-telogen ratio

A/T ratio (microscopic study).

Baicapil™ increases the ratio of anagen/telogen hair from 3.5 to 5.9, a change practically undetectable with placebo.

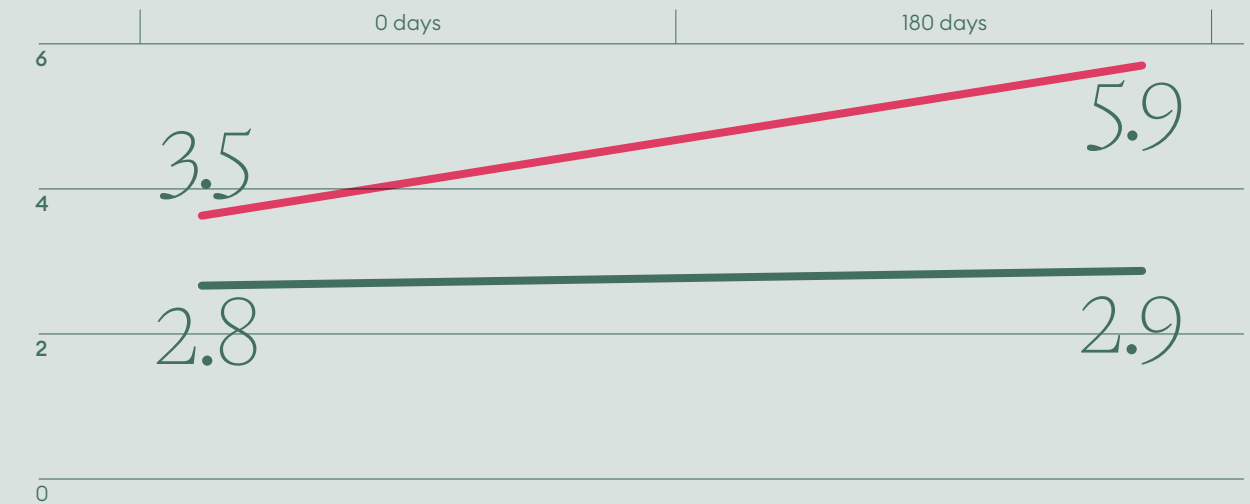
* A/T ≥ 4 is considered as an indicator of a normal hair condition.

This change means an increase in A/T ratio of 68.6%, compared to T0.

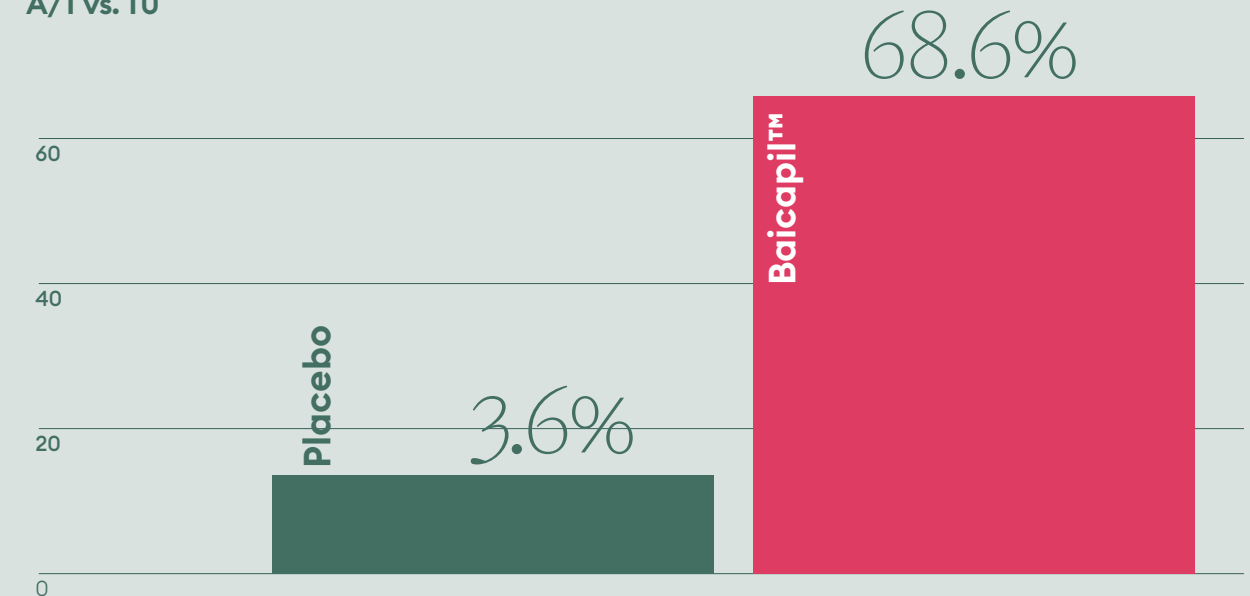
Baicapil™ stimulates hair growth

Baicapil™ Stimulates hair growth and prevents hair loss

A/T ratio. — Placebo — Baicalin



A/T vs. T0



In vivo efficacy

Hair density

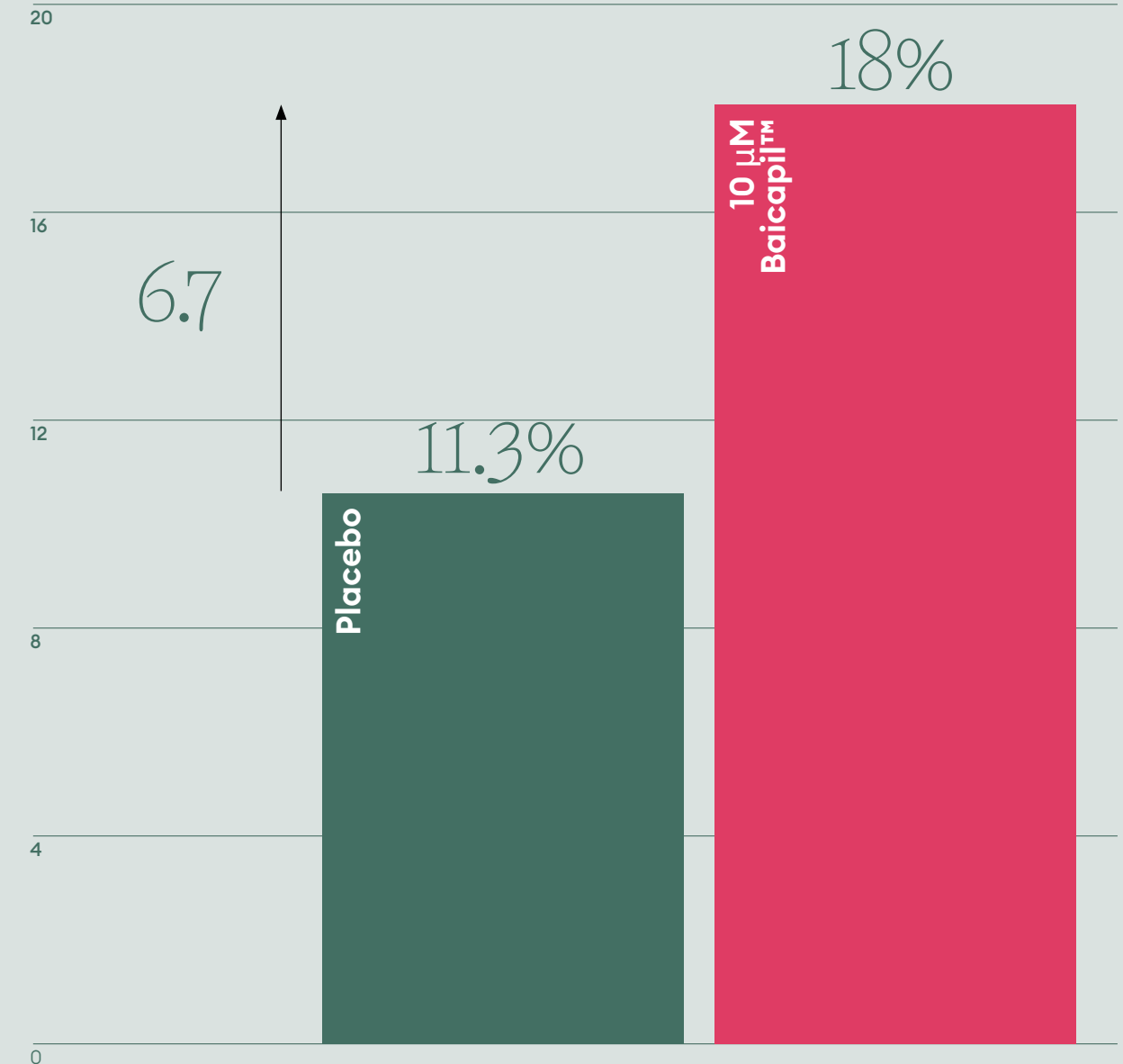
Density with microcamera.

Hair density is the number of hairs per unit area (cm²):
Baicapil increases the density of hair by 18% compared to T0.

Baicapil™ increases hair thickness and density, with volumizing effect

Baicapil™ Stimulates hair growth and prevents hair loss

Density vs. T0



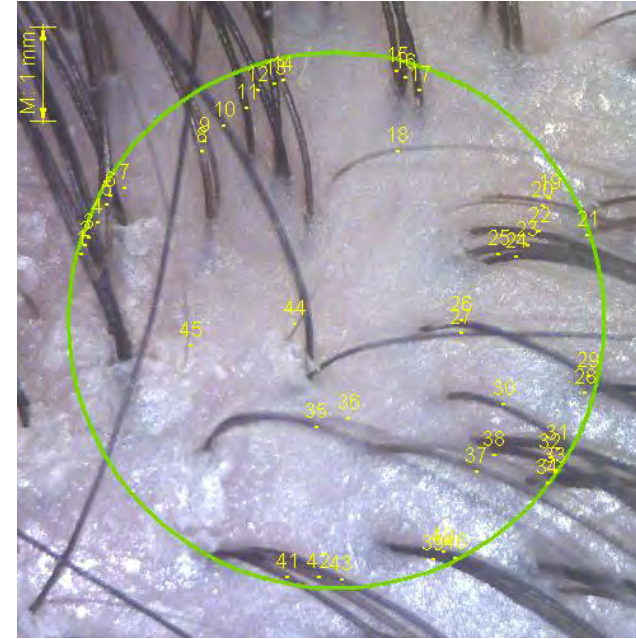
In vivo efficacy

Hair density

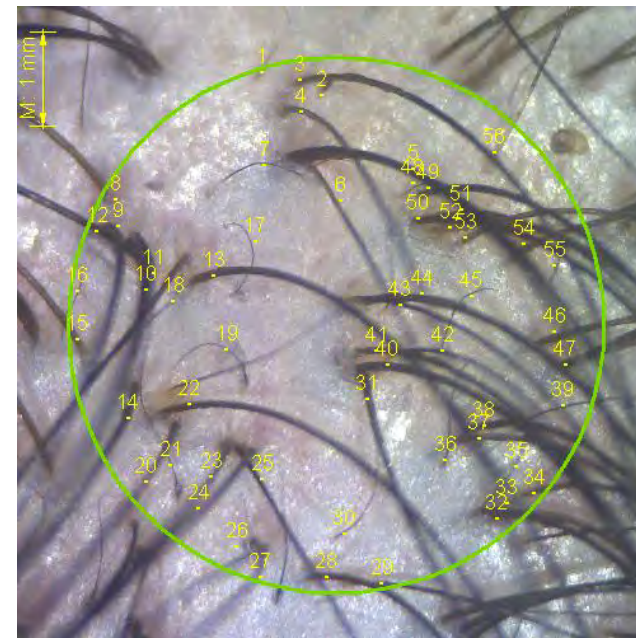
Microphotographies of the scalp.

There is a visible increase in the hair thickness and density after Baicapil™.

The photographs show a 22% increase of density
(from 182,98 hairs/cm² to 222,75 hairs/cm²)



TO



T180

In vivo efficacy

Number of hairs

Microphotographies of the scalp.

The number of hairs before and after using Baicapil™ is calculated:

- 12500 new hairs as an average.
- Up to 38000 new hairs.

The number of new hairs increases considerably



In vivo efficacy

Hair loss

Microphotographies of the scalp.

In just 3 months of treatment, Baicapil™ reduces hair loss by 60.6% vs. T0.

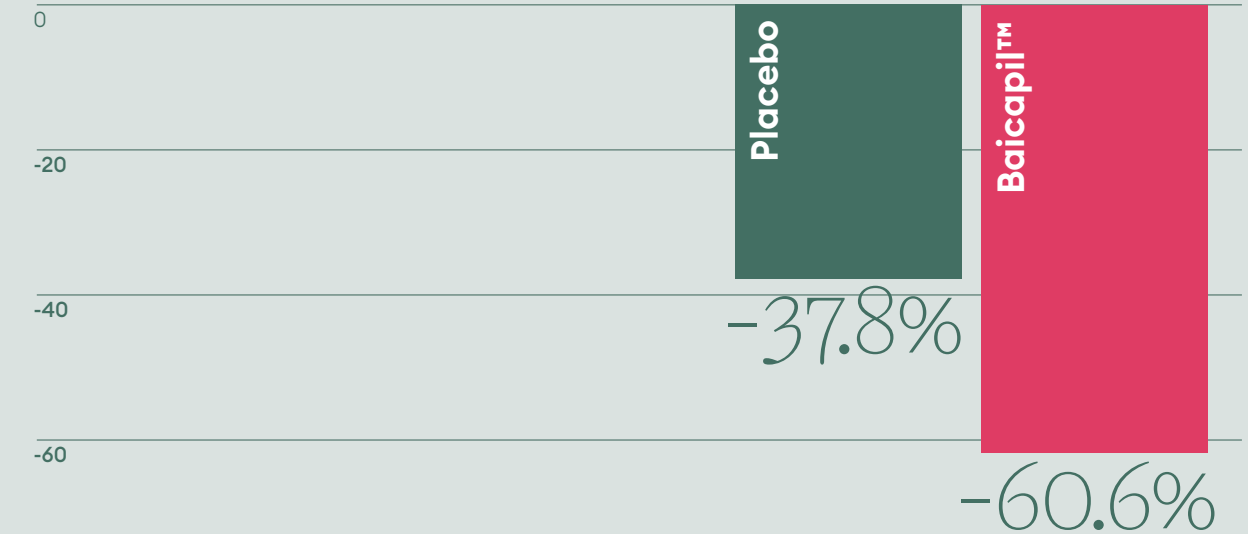
Even after 6 months, Baicapil™ continues reducing hair loss (- 50.9%*).

*Hair follicle metabolism has adapted to the daily intake of active.

Baicapil™ improves the condition of hair follicles and its anchorage in the scalp, thus reducing hair loss

Baicapil™ Stimulates hair growth and prevents hair loss

% hair loss T90 vs. T0



% hair loss T180 vs. T0



Conclusions

- Reduces hair loss.
- Increases hair growth and its density.
- Improves the quantity and quality of hair.
- Increases cellular activity.
- Protects the follicle from senescence and oxidative stress.
- Lengthens the anagen phase of hair cycle.
- Improves the ratio of hair anagen vs. telogen.

**Baicapil™ reduces hair loss,
stimulating hair growth and
improving its overall condition**

