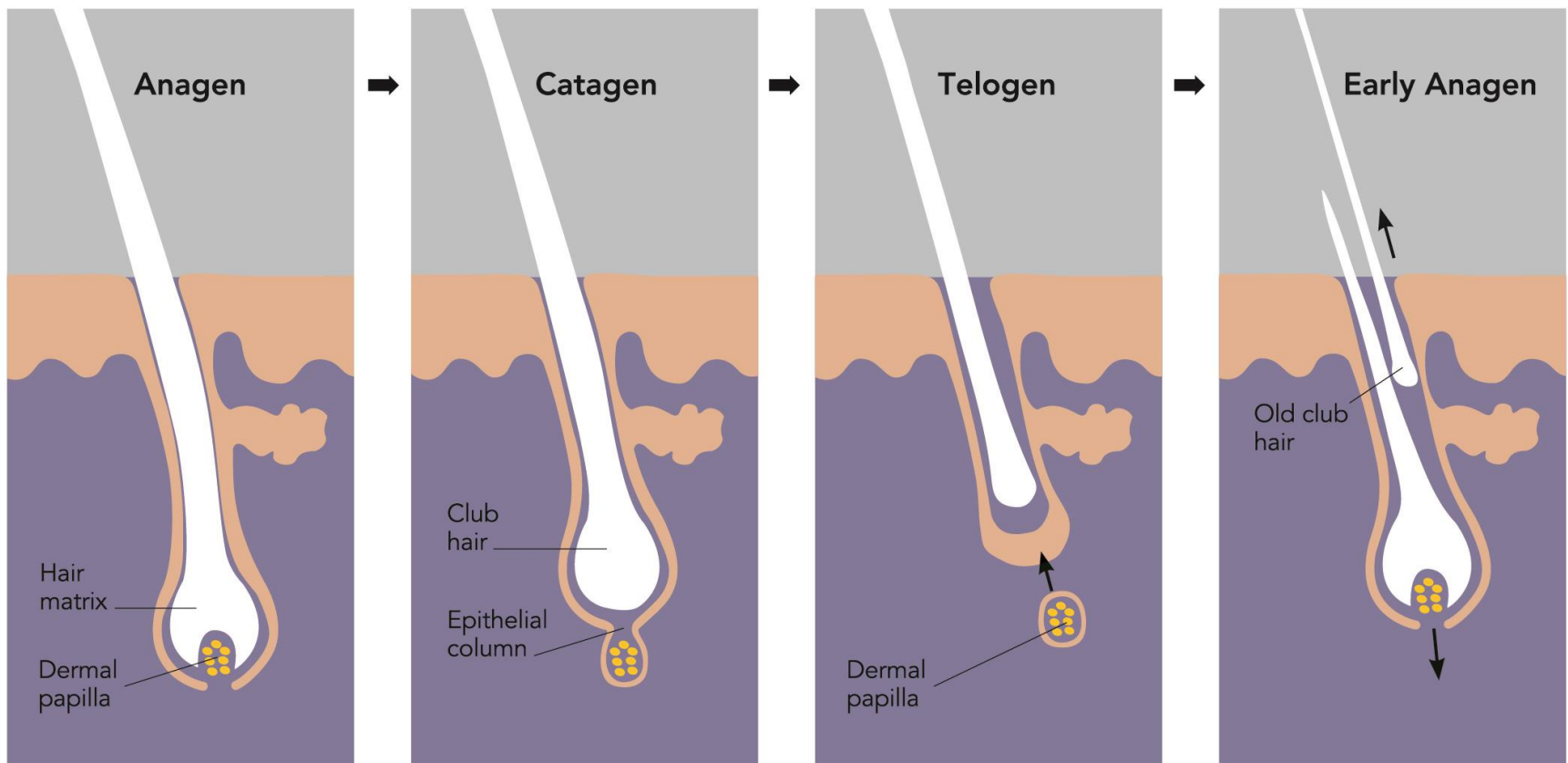




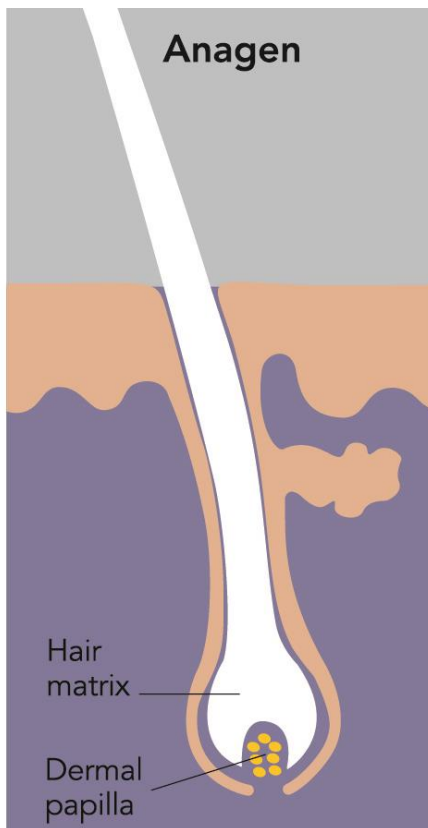
AnaGain™

Stimulating hair growth and fighting hair loss

The Hair Growth Cycle



The Dermal Papilla Controls Hair Follicle Development and Growth



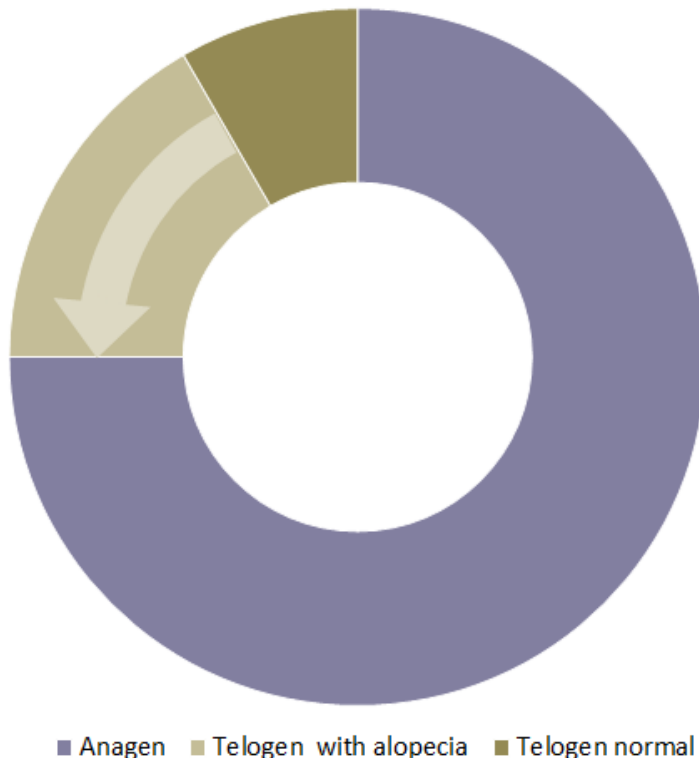
The hair matrix (epidermal cells)

- is one of the most rapidly proliferating tissues in the human body

The dermal papilla (specialized dermal cells)

- plays a major role in hair follicle development and growth
- controls the switch from telogen to anagen phase
- instructs the surrounding epithelial cells (hair matrix) to proliferate, move upward and differentiate into the multiple cell types (hair shaft, root sheaths)

Hair Loss has Several Causes



- In people with normal hair cycle about 85% of hair is in the anagen phase and 15% of hair in the telogen phase
- Hair loss (alopecia): imbalance of hair growth cycle → too many hair remain in the telogen phase
- Causes: several factors (hormonal imbalance, nutritional deficiency, metabolism, genetics, stress)
- Men and women are affected: 50% of men and 25% of women > 50 years

The Pea Plant

Pisum Sativum



- Annual plant with pod fruits
- Peas have both low-growing and vining cultivars
- The vining cultivars grow thin tendrils from leaves that coil around any available support and can climb to be 1–2 m high

The Pea



- Pea = small spherical seed / seed-pod of the plant *Pisum sativum*
- Each pod contains several peas
- Peas belong to the pulses and and thus to the family of *fabaceae*
- Peas are rich in proteins, starch and fibres

Pea Sprouts



- Sprouts are particularly vulnerable since they are not lignified
Sprouts have thus the highest amount of secondary plant metabolites (“health promoting chemicals”)
They protect the plant from
 - diseases
 - damage
 - pathogens
 - extreme UV
 - pollutants
 - herbivores

AnaGain™

Composition

Pisum sativum sprouts (fresh sprouts, organic) 15%
extracted with water

INCI/CTFA

Pisum Sativum Sprout Extract (and) Phenoxyethanol (and) Sodium Benzoate
(and) Aqua/Water

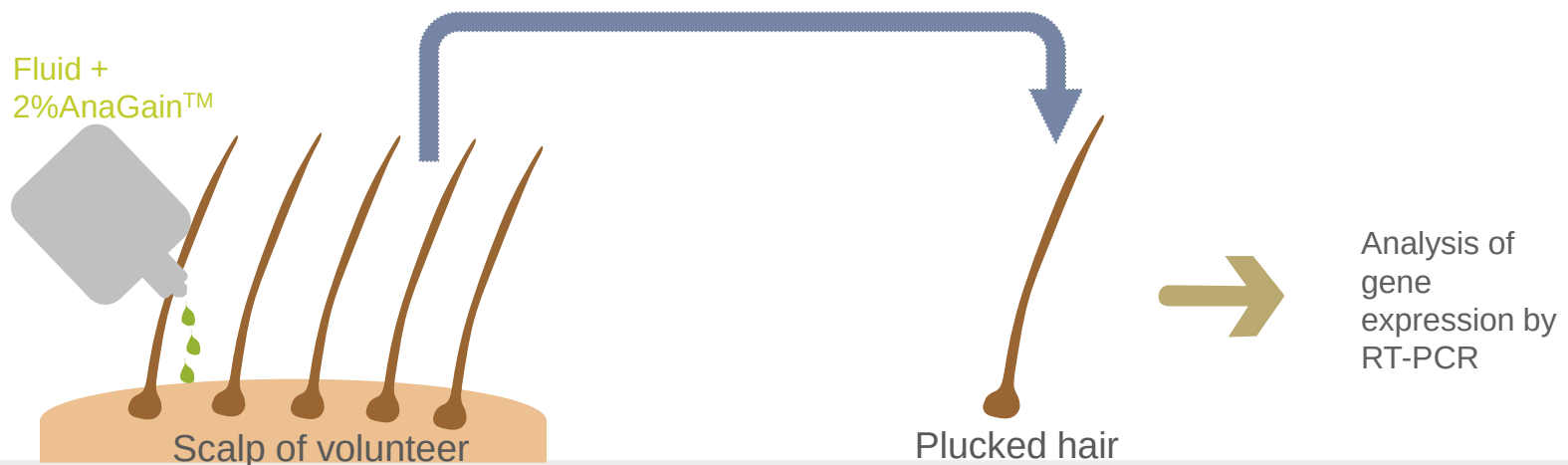
Two other versions available

AnaGain™ pf (preservative free)

AnaGain™ pwd (powder form)

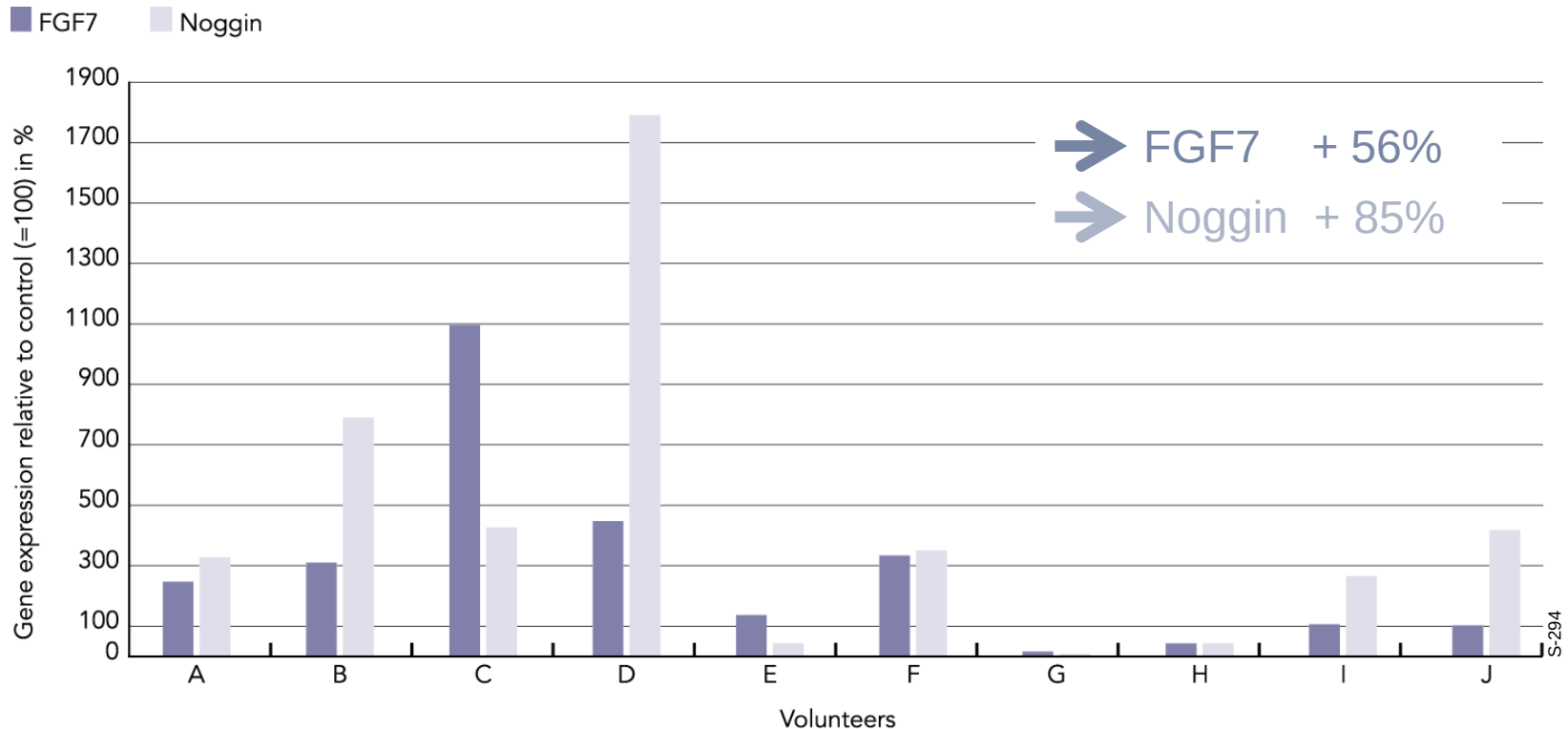
Effect on Gene Expression

- 10 volunteers (4 f, 6 m, 46 – 60 y) applied a scalp fluid with 2% AnaGain™ twice daily on a defined scalp zone during 14 days
- Hairs were plucked from the occipital area of the head before and after the treatment
- The expression of genes important in hair physiology was analyzed by RT-qPCR



S-294

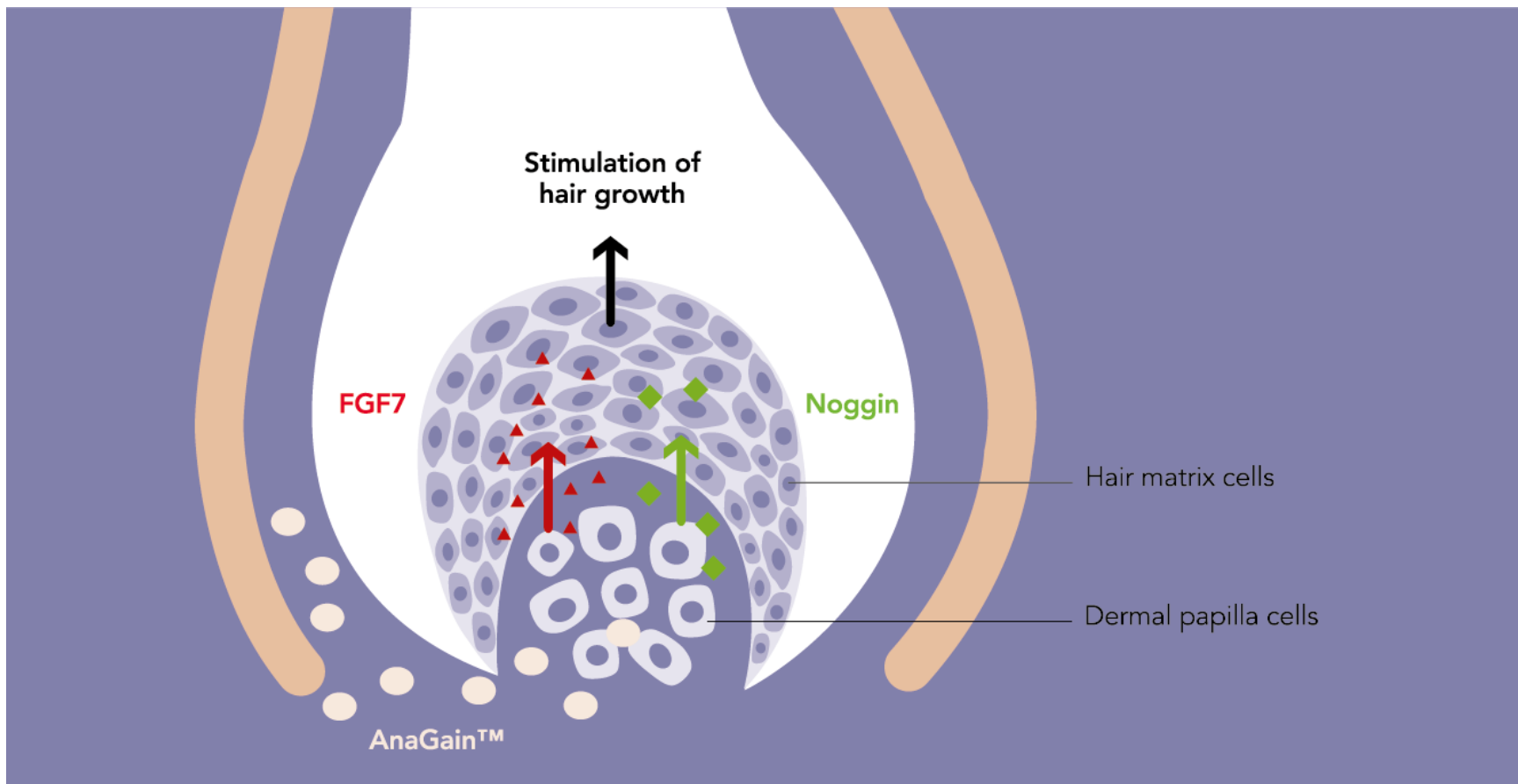
Results of Gene Expression Analysis



FGF7 Fibroblast growth factor-7, promotes proliferation activity of matrix keratinocytes at the beginning of a new anagen phase

Noggin Shortens the telogen phase
 ➔ AnaGain™ can stimulate the dermal papilla to induce the growth of new hair

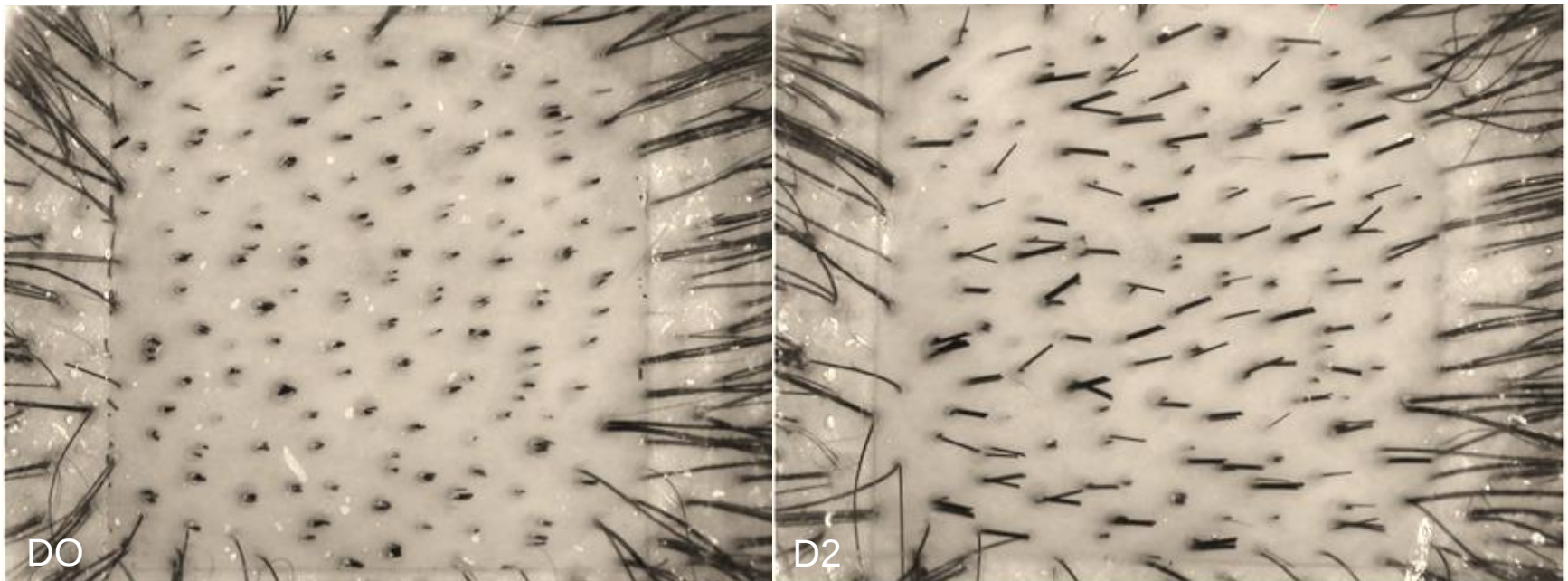
Mechanism of AnaGain™



Phototrichogram Technique

PRINCIPLE

Realisation of photographs with the EPIFLASH system of a shaved zone of the scalp at the beginning and two days after the shaving. Analysis of the picture with the software count'hair® to count the anagen and the telogen hair.

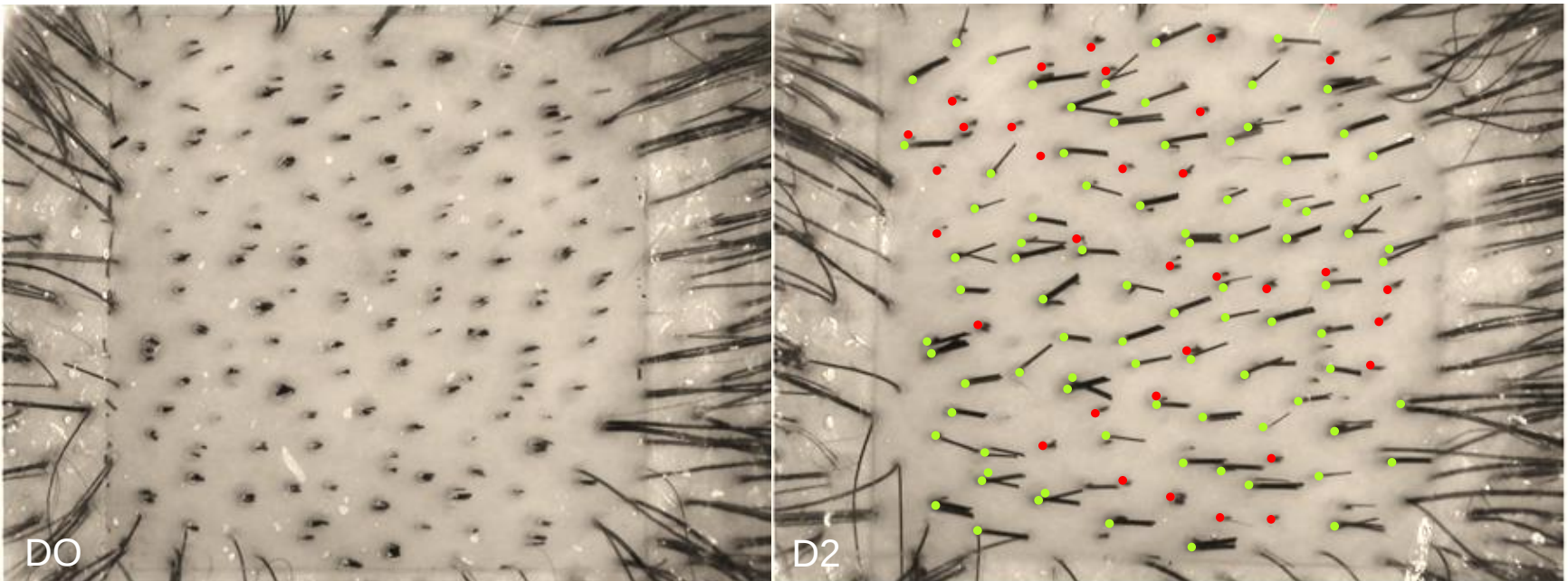


Phototrichogram Technique

PRINCIPLE

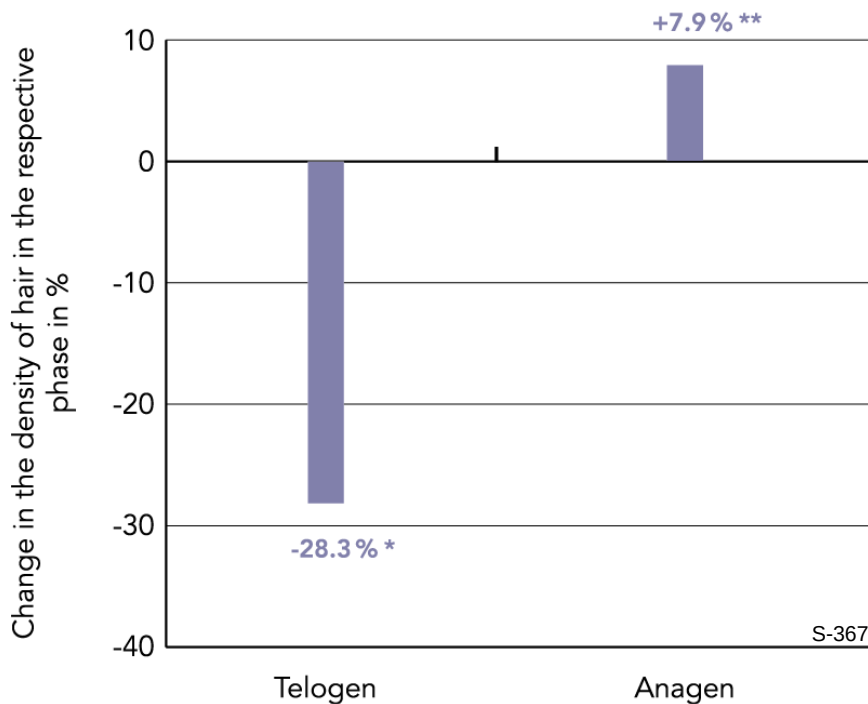
Realisation of photographs with the EPIFLASH system of a shaved zone of the scalp at the beginning and two days after the shaving. Analysis of the picture with the software count'hair® to count the anagen and the telogen hair.

● anagen hair ● telogen hair



Anti-Hair Loss Effect and Hair Growth Reactivation 1

■ 4% AnaGain™



*p=0.001 versus initial conditions

**p=0.002 versus initial conditions

Test product: Gel with 4% AnaGain™

Test area: Scalp

Volunteers: 20 (17 f, 3 m, 21 – 37 y)

Product application:

Twice a day for 3 months

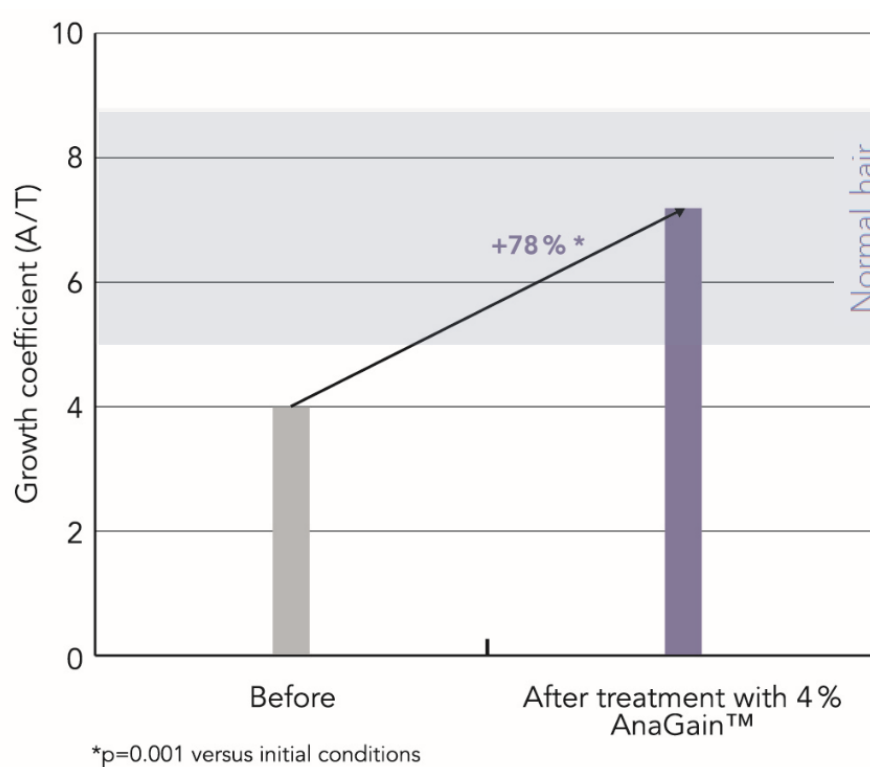
Measurements:

Phototrichogram technique (vertex area)



AnaGain™ can reactivate hair growth by reducing amount of hair in telogen hair phase and stimulating anagen hair

Anti-Hair Loss Effect and Hair Growth Reactivation 2



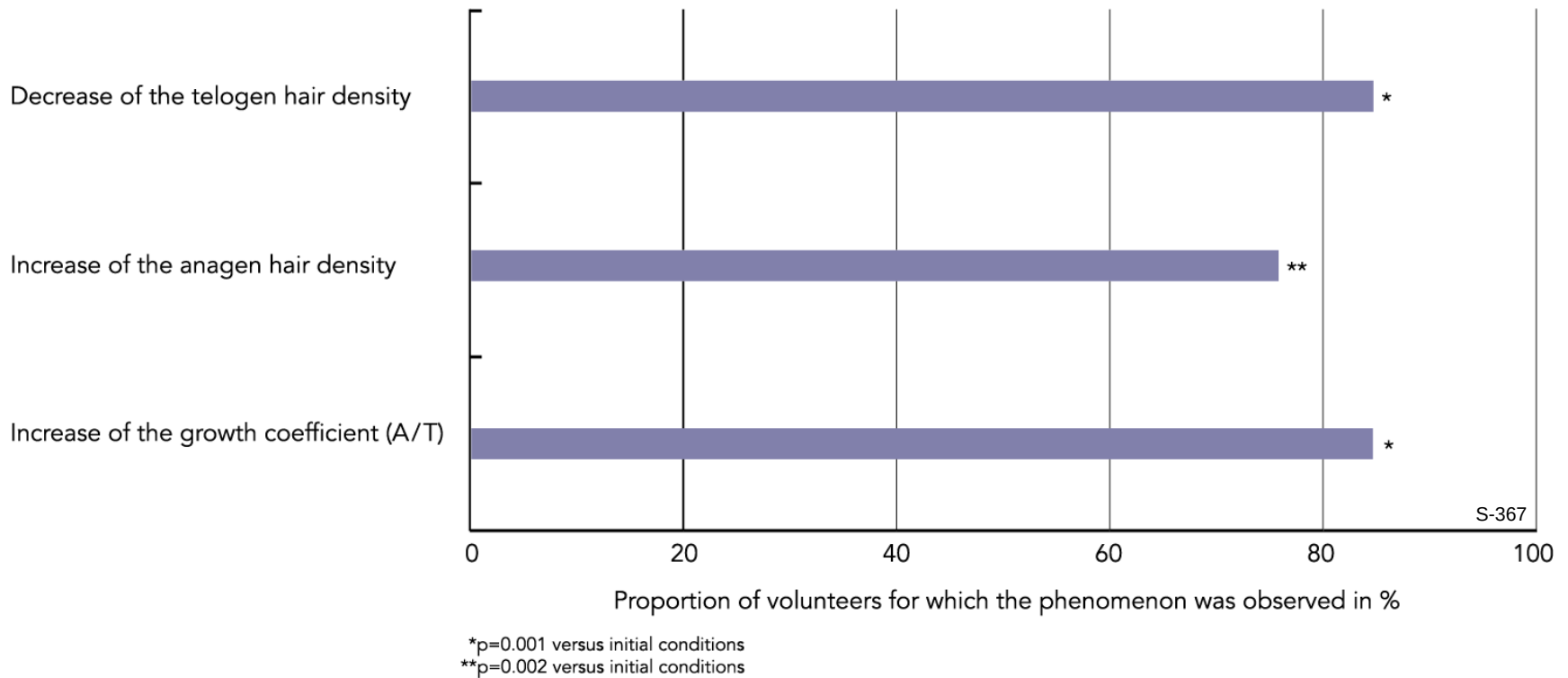
A/T ratio (growth coefficient)

- Ratio of number of anagen hairs to the number of telogen hairs
- $A/T < 5 \rightarrow$ hair loss problem



AnaGain™ restores hair regeneration by 78% to a normal level ($A/T = 7.2$)

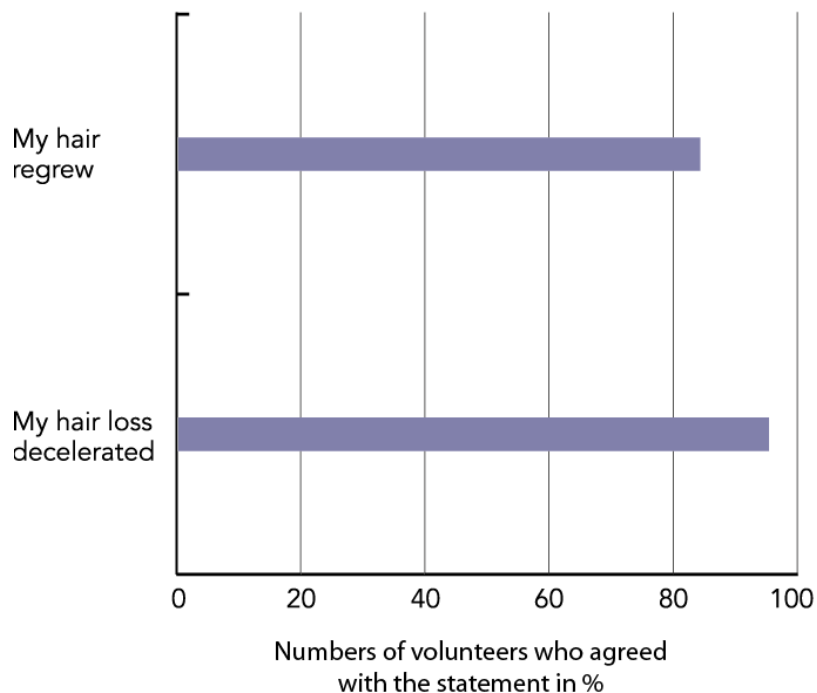
Anti-Hair Loss Effect and Hair Growth Reactivation 3



→ Anti-hair loss effect of AnaGain™ in a large part of the panel

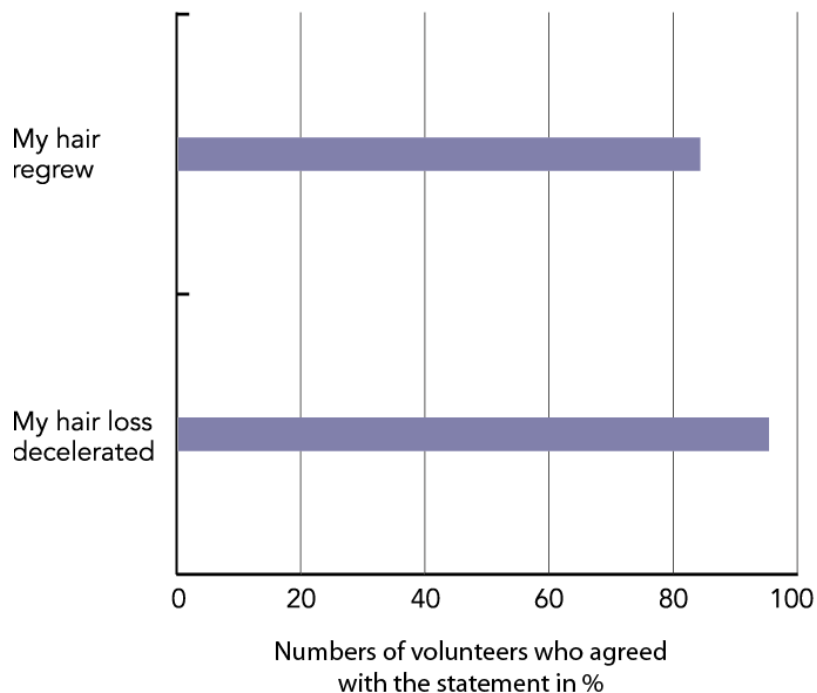
Anti-Hair Loss Effect and Hair Growth Reactivation 4 (Questionnaire)

■ 4 % AnaGain™

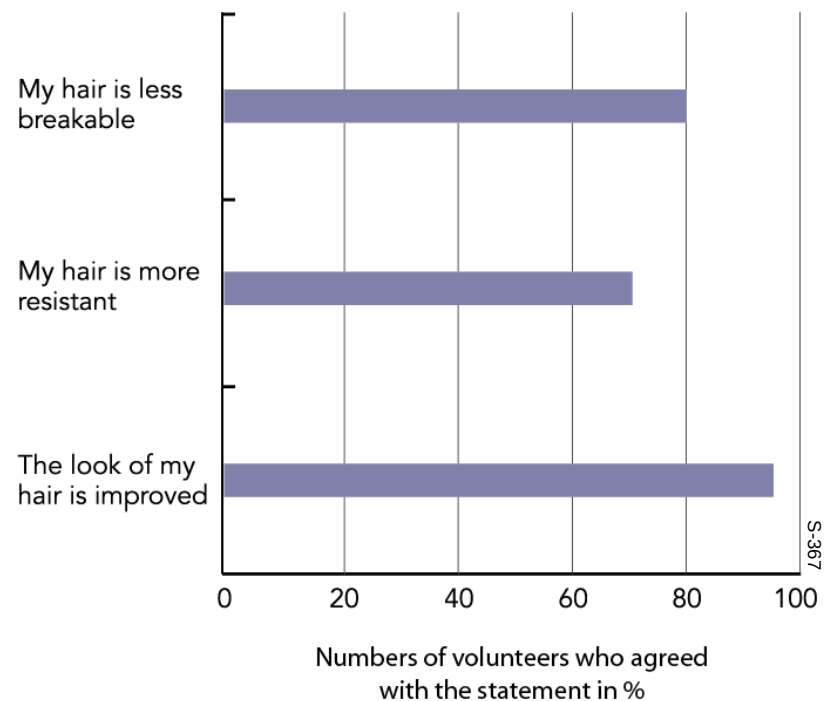


Anti-Hair Loss Effect and Hair Growth Reactivation 4 (Questionnaire)

■ 4 % AnaGain™



■ 4 % AnaGain™



AnaGain™

Claim Ideas



- Stimulates hair growth at the root
- Prolongs the life cycle of hair
- Fully restores the vitality of the hair
- For denser hair in just 3 months

AnaGain™ Applications



- Anti-hair loss, hair-regrowth formulations
- Anti-aging hair care products
- Tonics, serums, conditioners, masks, shampoos

AnaGain™

Marketing Benefits



- In vivo proven on women and men
- Organic source of the plant
- Advanced Ingredient Award Winner 2014

