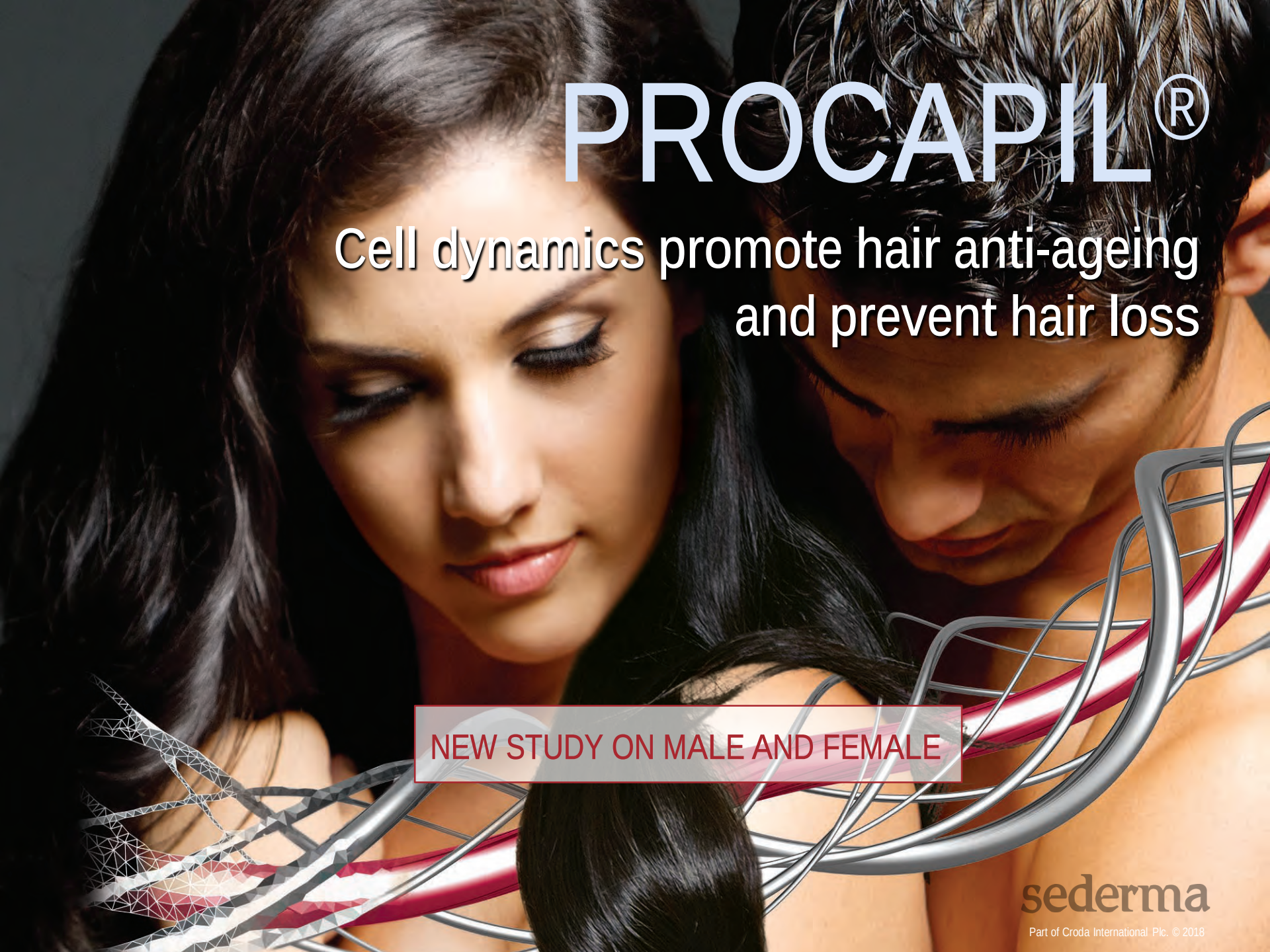
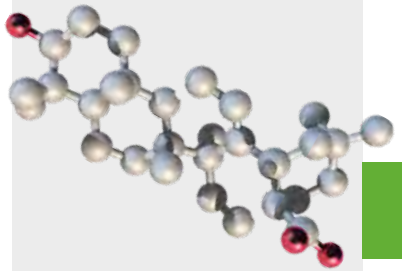
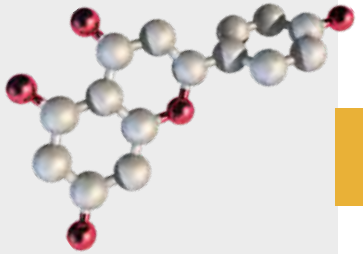


PROCAPIL®



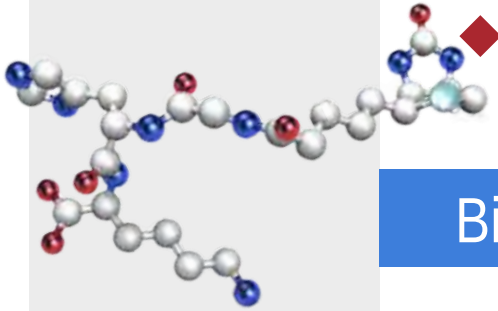
- Lessens dihydrotestosterone production by inhibiting 5α-reductase type I and type II

Oleanolic acid from natural origin



- Improves blood irrigation of the hair follicle

Apigenin, a natural flavonoid



- Improves follicle keratinocyte quality and stimulates production of anchoring molecules

Biotinyl-Gly-His-Lys, vitaminated matrikine (vitamin H)

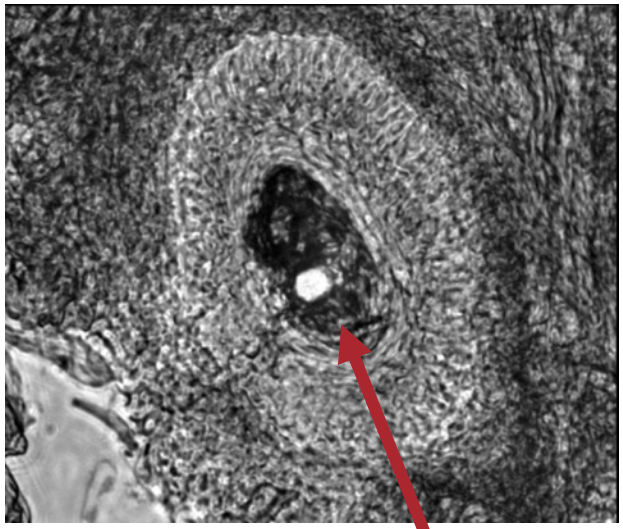
sederma

Substantivity of biotinyl-GHK

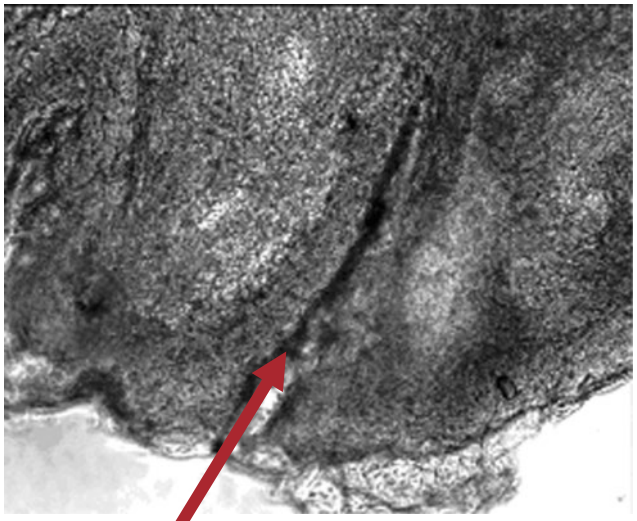
in vitro

Protocol

Skin explants are incubated for 18 hours with 60 ppm biotinyl-GHK. Biopsies are frozen and cut. Biotinyl-GHK is revealed by immunofluorescence with streptavitine peroxydase.



Magnification x40



Magnification x20

Biotinyl-GHK targets specifically the areas of cell proliferation: epithelium sheath and dermal papilla.

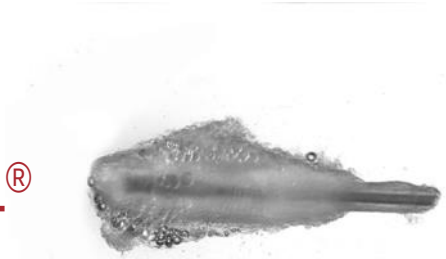
sederma

Stimulation of hair growth

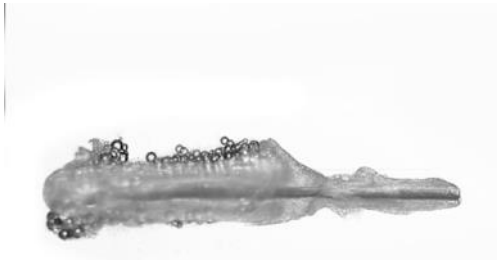
in vitro

Protocol: Hair follicles are incubated for 14 days with biotinyl-GHK or minoxidil (2 ppm)

PROCAPIL®



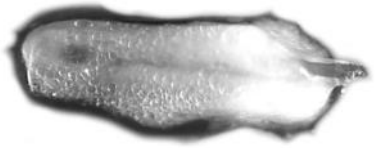
T0

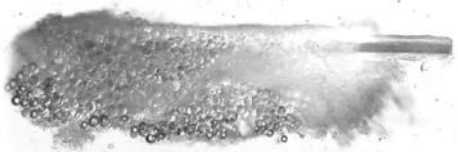


T7 days

T14 days

Control





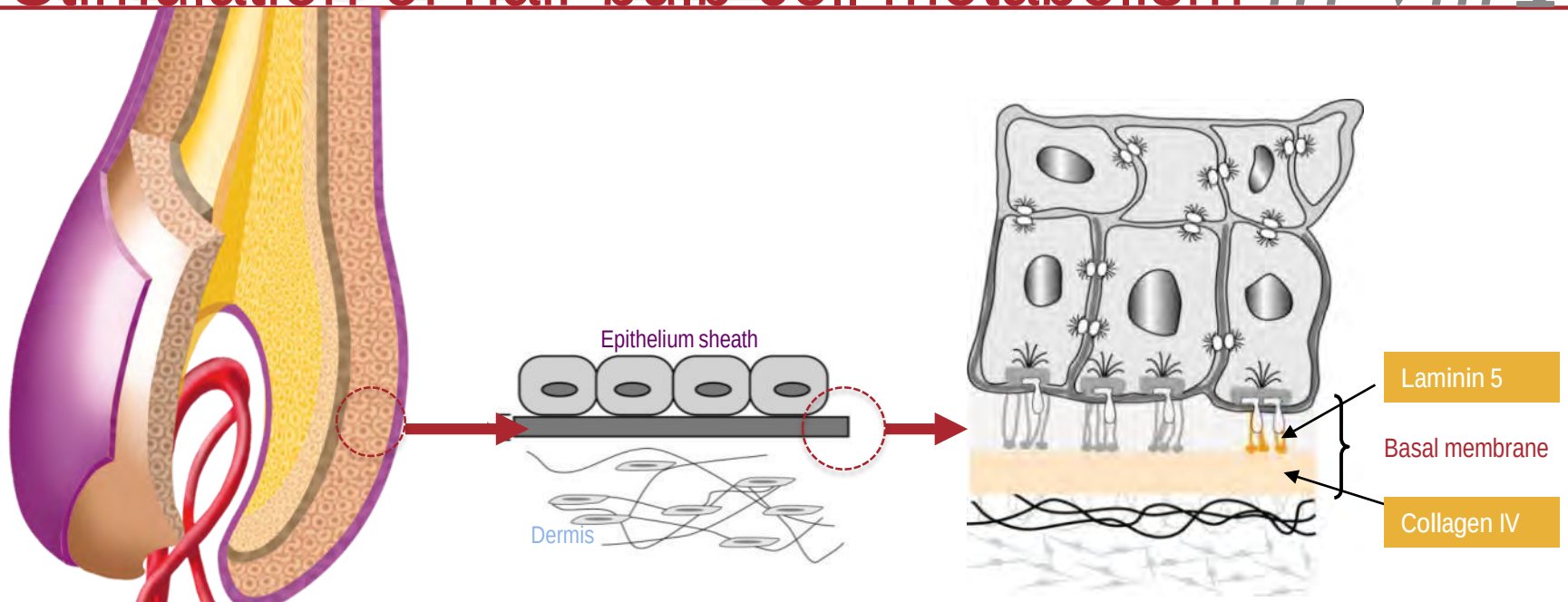
Growth in 14 days compared to T0:

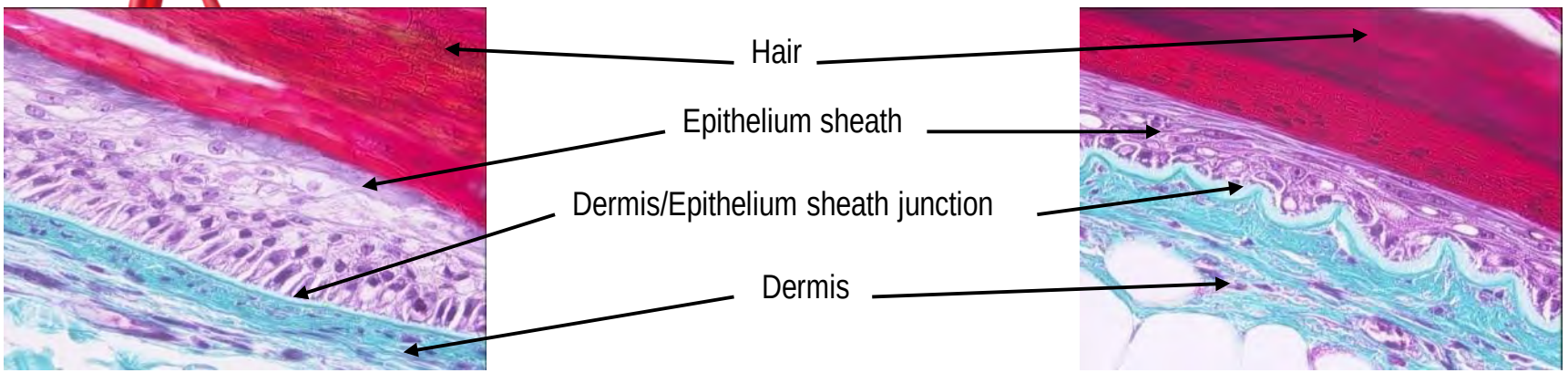
+66% with 2 ppm biotinyl-GHK (1% Procapil®), similar to minoxidil

+92% with 5 ppm biotinyl-GHK (2.5% Procapil®)

sederma

Stimulation of hair bulb cell metabolism *in vitro*





Control 14 days

Treated 14 days

sederma

Visible results

in vivo

Before

After 4 months

With the PROCAPIL® treatment, 68% volunteers had an improvement in anagen hair density.

sederma

Male alopecia

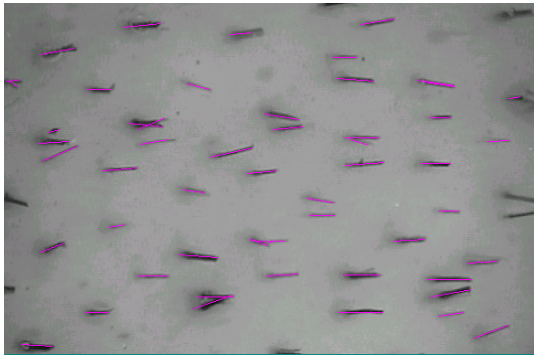
in vivo

Clinical 4 month study

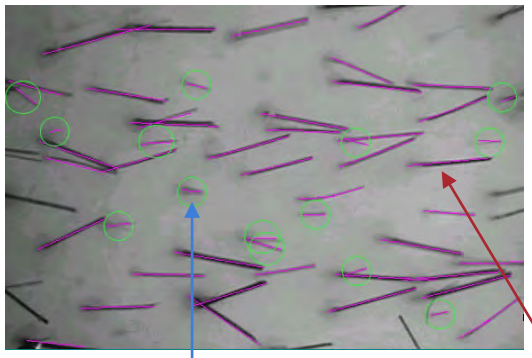
Protocol

35 male volunteers with alopecia (T_{mean}=28%), between 18 and 50 years old
18 volunteers applied twice-daily a 3% PROCAPIL® hair lotion
17 volunteers applied a placebo

- Videotrichogramme and morphological study
- Ratio A/T (phase A: anagen phase of growth, phase T: telogen phase of loss)



Day 0 Hair cut

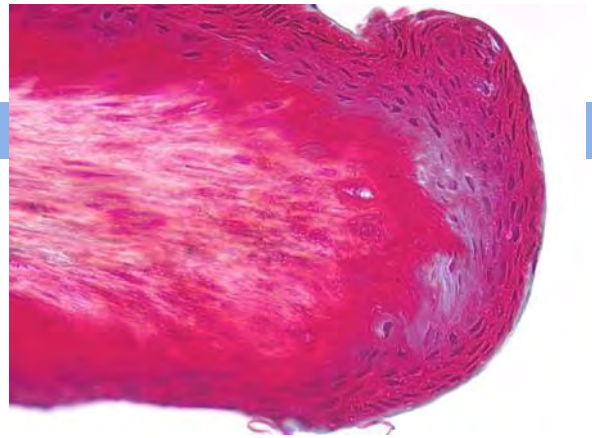
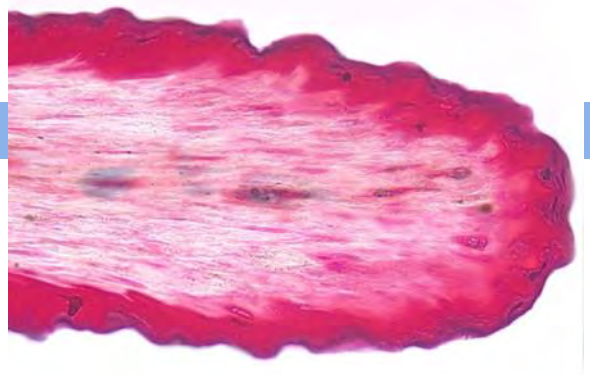
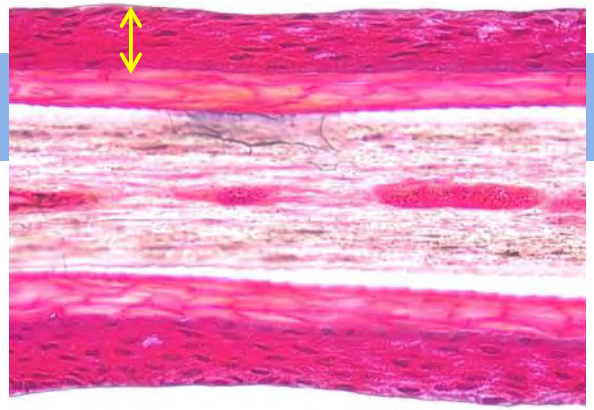


Day 2

sederma

Morphological study after 4 months

in vivo

PROCAPIL™		Control
	Hair bulb of a telogen hair	
	Epithelium sheath of a telogen hair	

sederma

Female alopecia

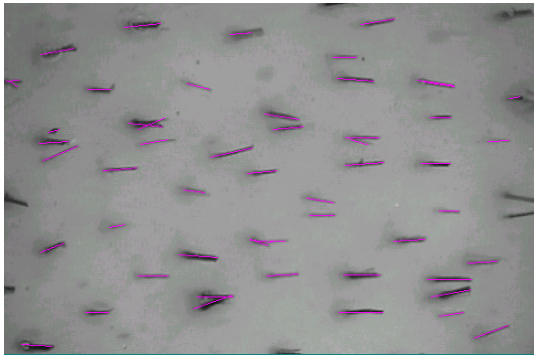
in vivo

Clinical 4 month study

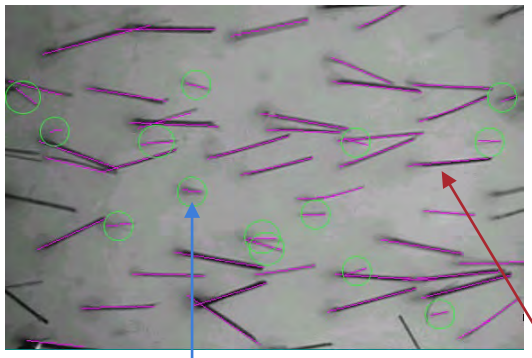
Protocol

42 female volunteers experiencing hair loss (Grade 1 or 2, T_{min}=15%), between 21 and 47 years old
21 volunteers applied 3% PROCAPIL® in a hair serum
21 volunteers applied a placebo
Minimum of 3 times per week application

- Videotrichogramme
- Ratio A/T (phase A: anagen phase of growth, phase T: telogen phase of loss)



Day 0 Hair cut



Day 2

sederma