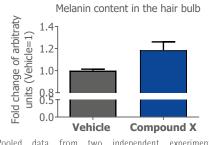
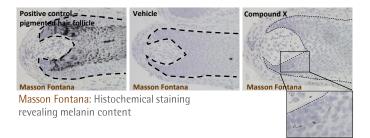
# Investigating the effect of a test compound on hair follicle pigmentation

Study example: Compound X stimulates pigmentation in gray hair follicles

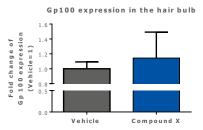
### 1. Compound X stimulates melanin production



Pooled data from two independent experiments. Mean±SEM, n=4-6 <u>anagen VI</u> hair follicles from two donors

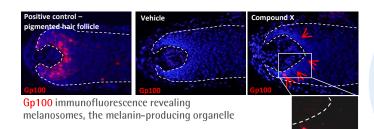


### 2. Compound X tendentially promotes the formation of new melanosomes



Pooled data from two independent experiments.

Mean±SEM, n=5-8 anagen VI hair follicles from two donors.

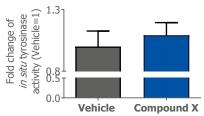


Selections of
our publications
on the topic:
Chéret et al., Br J Dermatol.
2020; Hardmann et al., J
Invest Dermatol 2015;
Samuelov et al., J Invest
Dermatol 2013; Gaspar et
al., J Invest Dermatol 2011

Read-outs:
Hair Pigmentation,
Melanocyte Maturation,
Melanin Transfer,
Activation Melanogenesis,
Growth Factors regulating
Pigmentation

### 3. Compound X tendentially increases the activity of tyrosinase

Tyrosinase activity in the hair bulb



Pooled data from two independent experiments.

Mean±SEM, n=4-5 <u>anagen VI</u> hair follicles from two donors



 ${\it In \, situ}$  assay revealing the enzymatic activity of tyrosinase, the rate-limiting enzyme regulating melanin production





Human microdissected amputated white hair follicles



Human microdissected amputated pigmented hair follicles

Our method: *Ex vivo* organ culture of human healthy microdissected pigmented or gray/white hair follicle (Langan et al., Exp Dermatol 2015; Kloepper et al., Exp. Dermatol 2010)



Monasterium Laboratory Skin & Hair Research Solutions GmbH Mendelstr. 17, 48149 Muenster, Germany Founder & CEO: Prof. Dr. Ralf Paus

## Contact us for a customized study:

CSO & Deputy General Manager: Dr. Marta Bertolini (PhD) Deputy CSO & Team Leader: Dr. Janin Edelkamp (PhD)

m.bertolini@monasteriumlab.com j.edelkamp@monasteriumlab.com + 49 (0)251 93263-080

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#### For enquiries, please contact:

CSO & Deputy General Manager: Dr. Marta Bertolini (PhD) m.bertolini@monasteriumlab.com + 49 (0)251 93263-080