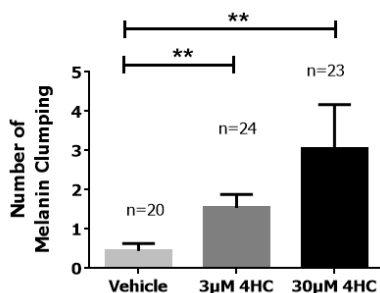


Investigating effects on skin and hair cytotoxicity

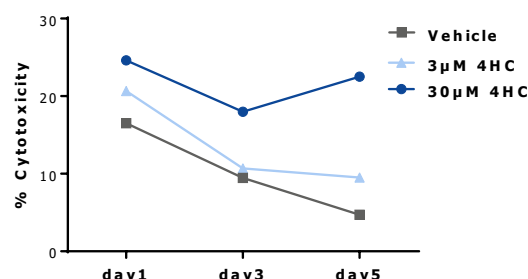
Study example: Compound X induces hair follicle cytotoxicity *ex vivo*

Our method:
Human healthy
microdissected
full-length hair
follicle *ex vivo* organ
culture

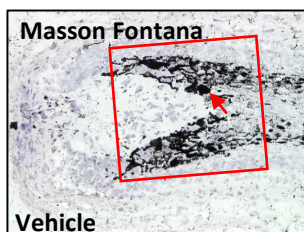
4-Hydroperoxy
Cyclophosphamide
(4HC):
chemotherapy agent
metabolite



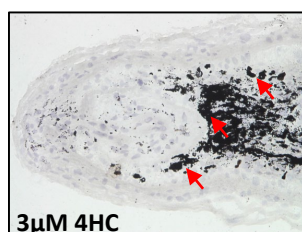
Pooled data from 3 independent experiments.
Mean±SEM n=20-24HF from 3 donors



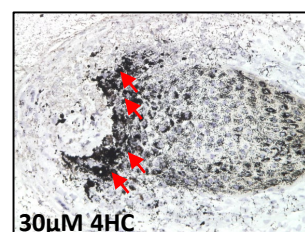
Data from 1 experiment, Mean±SEM n=12
HF from 1 donor



Vehicle



3µM 4HC



30µM 4HC

Masson Fontana: histochemical staining revealing melanin content
Red marked area shows region of analyses, red arrows show melanin clumps

Study example: UVR exerts skin cytotoxicity and epidermal damage *ex vivo*

Skin Cytotoxicity

Epidermal Sunburn cells

Apoptotic (TUNEL+) epidermal keratinocytes

low = 10J/cm² UVA+
20mJ/cm² UVB
high = 50J/cm² UVA
+ 50mJ/cm² UVB
(solar UV spectrum)

Our method:
Human full-
thickness skin *ex vivo* organ
culture

Stressors
available:
UVR, pollution,
hydrogen
peroxide,...

Selection of
our publications
on the topic:

Gherardini et al., Int J Cosmet Sci 2019; Poeggeler et al., Exp Dermatol 2010; Lu et al., J Invest Dermatol. 2009; Bodo et al., Am J Pathol 2007

Read-outs: viability,
proliferation and
apoptosis,
necroptosis, DNA
damage, sunburn
cells...

Contact us for a
customized study:

CEO:
Dr. Marta Bertolini (PhD)
CSO:
Dr. Janin Edelkamp (PhD)

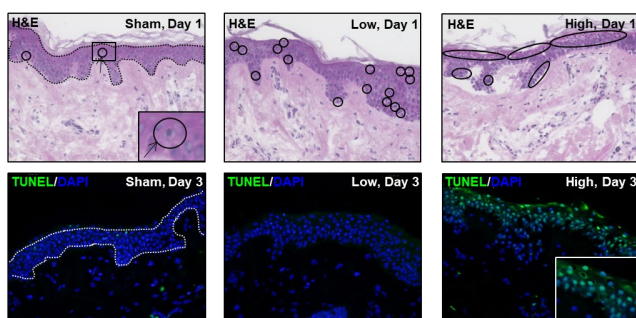
m.bertolini@monasteriumlab.com
j.edelkamp@monasteriumlab.com
+ 49 (0)251 93263-080

For more details see also our webpage:
www.monasteriumlab.com

Haematoxylin &
Eosin (H&E)
histochemistry

TUNEL

immuno-fluorescence



We can test your compounds ability to:

- Protect the skin or hair follicle from UVR
 - Prevent formation of free radicals
 - Protect the skin or hair follicles from pollutants
- ...possibly also with topical application!...

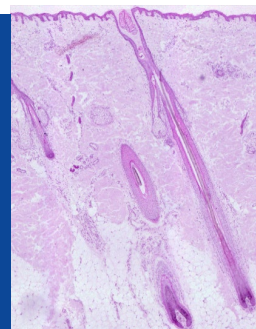


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Prof. Dr. Ralf Paus

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- Clinical trials carried out with strategic partners for healthy skin and hair benefits
- Comprehensive project reports & manuscript drafting and submission

Monasterium Laboratory

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