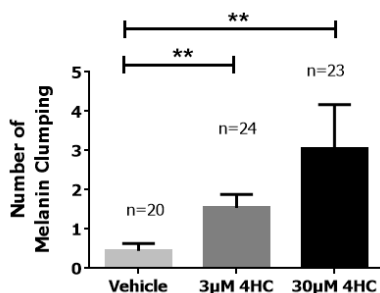


Investigating effects on skin and hair cytotoxicity

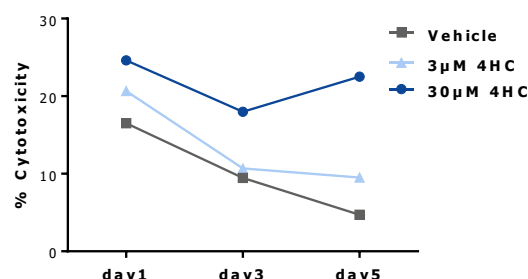
Study example: Compound X induces hair follicle cytotoxicity *ex vivo*

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

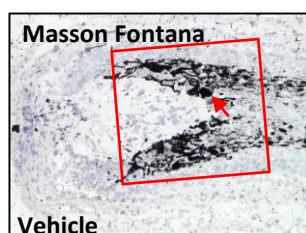
4-Hydroperoxy
Cyclophosphamide
(4HC):
chemotherapy agent
metabolite



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

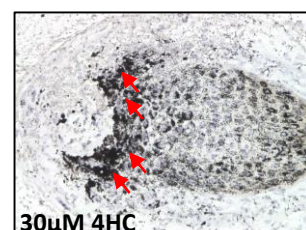
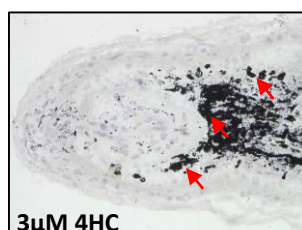


Data from 1 experiment, Mean±SEM n=12
HF from 1 donor



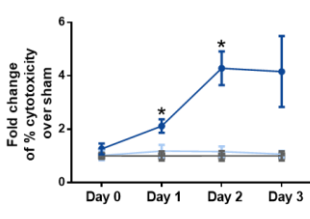
Masson Fontana: histochemical staining revealing melanin content

Red marked area shows region of analyses, red arrows show melanin clumps

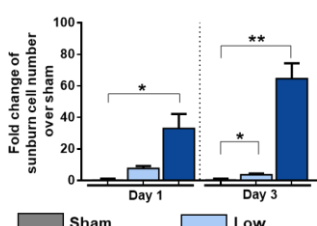


Study example: UVR exerts skin cytotoxicity and epidermal damage *ex vivo*

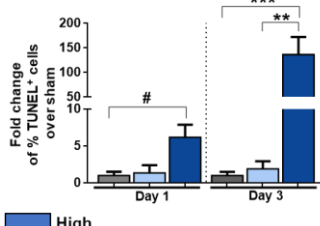
Skin Cytotoxicity



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

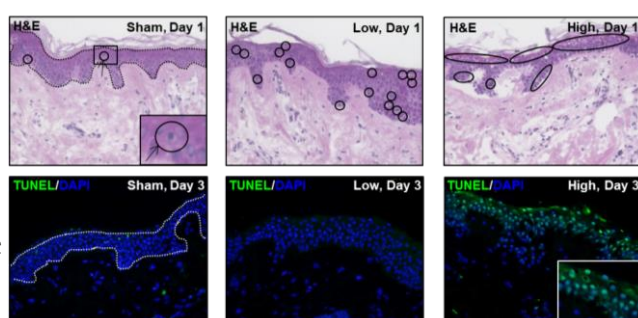
Stressors
available:
UVR, pollution,
hydrogen
peroxide,...

Selection of
our publications
on the topic:

Gherardini et al., Int J Cosm
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...

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!...

Contact us for a
customized study:

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Dr. Janin Edelkamp (PhD)

m.bertolini@monasteriumlab.com
j.edelkamp@monasteriumlab.com
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For more details see also our webpage:
www.monasteriumlab.com

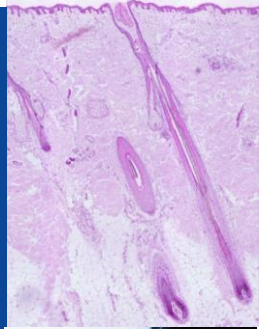


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- Clinical trials carried out with strategic partners for healthy skin and hair benefits
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