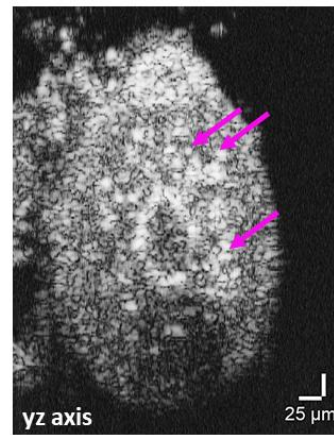
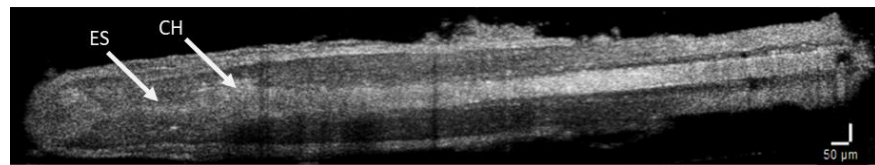
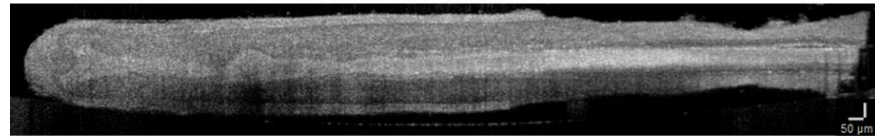
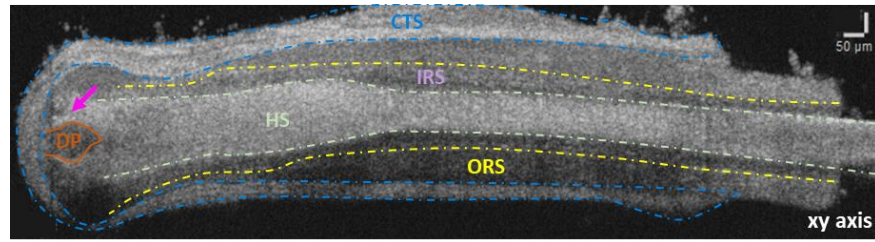


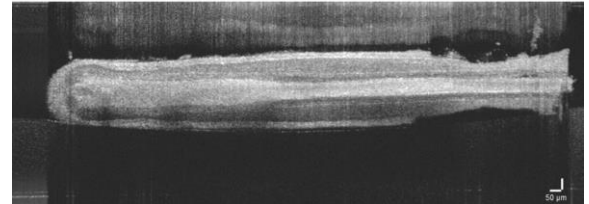
Intravital analyses (3D) of skin and hair follicle *ex vivo*: Optical Coherence Tomography



Cross-sectional view of a living anagen hair follicle
pink arrows: melanocytes, evidenced by dendrites, different optical reflection and specific location

Label-free method

Living hair follicles in different hair cycle stage during *ex vivo* organ culture: Anagen (top), early catagen (middle), and mid catagen (bottom)
DP, dermal papilla; ORS, outer root sheath; IRS, inner root sheath; CTS, connective tissue sheath; HS, hair shaft; ES, epithelial strand; CH, brush like club hair



Exact distinction of hair cycle stages during organ-culture
Bright field microscopy (top) compared to OCT microscopy (bottom) images

Intravital method for obtaining high-resolution anatomical details

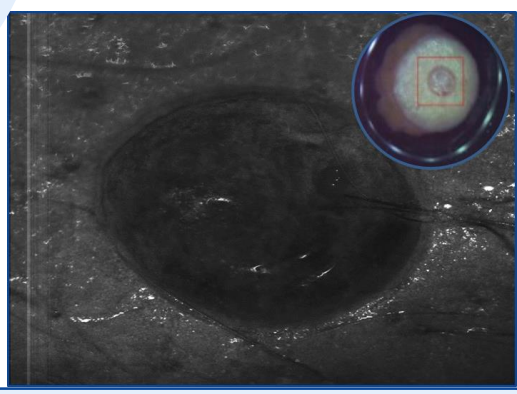
OCT can be applied to the following *ex vivo* models:

- Human skin organ culture (healthy or diseased samples, i.e. psoriasis, atopic dermatitis,...)
- Human microdissected hair follicle organ culture
- Human skin wound healing

Our publication on this technique:
Lehmann et al., British Journal of Dermatology

Read outs:

- Hair shaft diameter
- Hair pigmentation
- Anagen prolongation
- Re-epithelization



Visualization of wound closure in a punch-in-a-punch wound healing model on day 3 of organ culture

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

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

Coming soon: Skin elasticity using micro-elastography (OCE)!

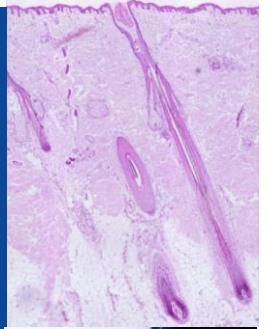


MONASTERIUM LABORATORY

A Q I M A Life Sciences Company

All about
skin and hair
bioscience!

State-of-the-art technology and expertise
for all your pre-clinical, mechanistic, and
clinical needs in dermatology research.



- ▶ Pre-clinical Research
- ▶ Clinical Research
- ▶ Education



"We combine
our unique expertise,
our project design creativity,
and our passion to advance
our clients' success in
delivering novel and game-
changing skin and hair
research solutions"

Founder & CEO:
Prof. Dr. Ralf Paus

Your one-stop
source for all *in vitro*,
ex vivo and *in vivo*
testing plus additional
services.

Reasons why you should choose Monasterium Laboratory:

- Cutting edge methodologies and techniques
- Tailor-made & customized assays for all needs
- A focus on novel targets and therapeutics for skin & hair disorders: identify-characterize-validate
- Delivering mechanistic action stories, biomarkers & predictors of response
- Claims support for cosmetic ingredients in skin or hair follicle models
- Clinical trials carried out with strategic partners for healthy skin and hair benefits
- Comprehensive project reports & manuscript drafting and submission

Monasterium Laboratory

Skin & Hair Research Solutions GmbH
Mendelstr. 17, 48149 Münster, Germany

www.monasteriumlab.com

For enquiries, please contact:

CSO & Deputy General Manager:
Dr. Marta Bertolini (PhD)

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