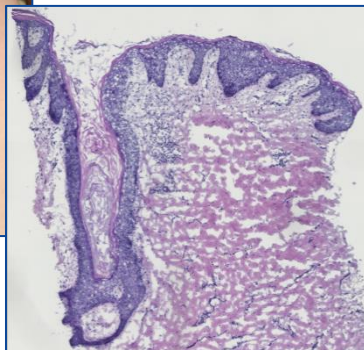


State-of-the-art technology and expertise  
for all your pre-clinical, mechanistic, and  
clinical needs in dermatology research.

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



# Hidradenitis suppurativa



"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

**Monasterium Laboratory**  
Skin & Hair Research Solutions GmbH

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Phone: +49 (0) 251 93264-458  
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Founder & CEO: Prof. Dr. Ralf Paus

[www.monasteriumlab.com](http://www.monasteriumlab.com)

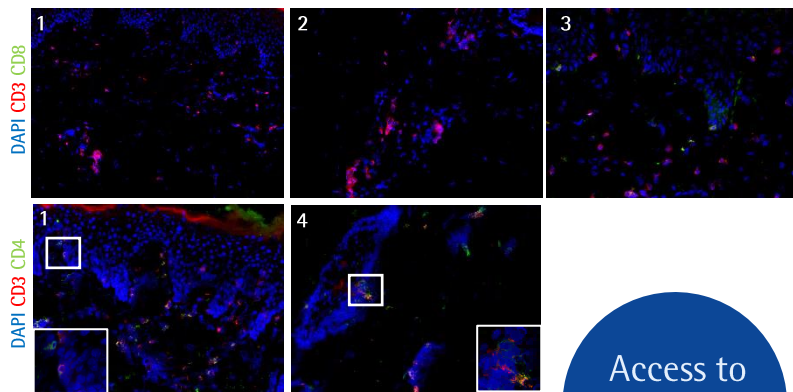
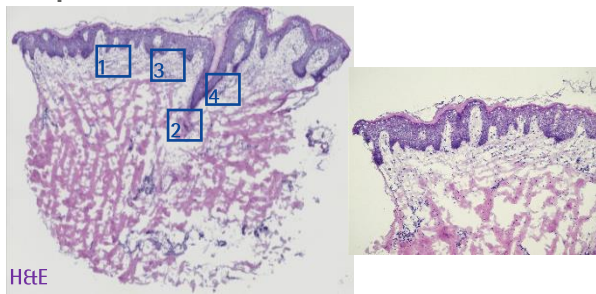
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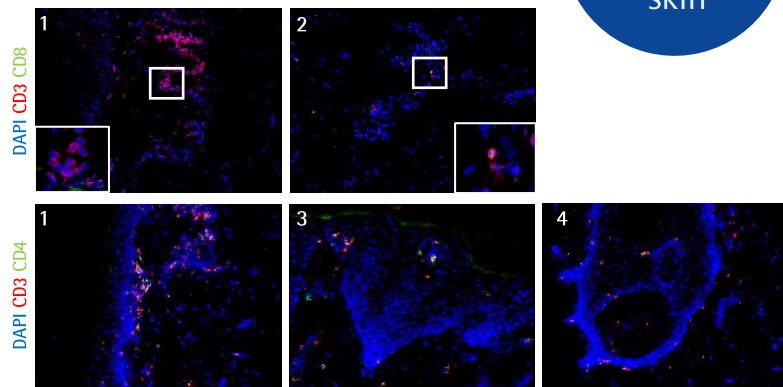
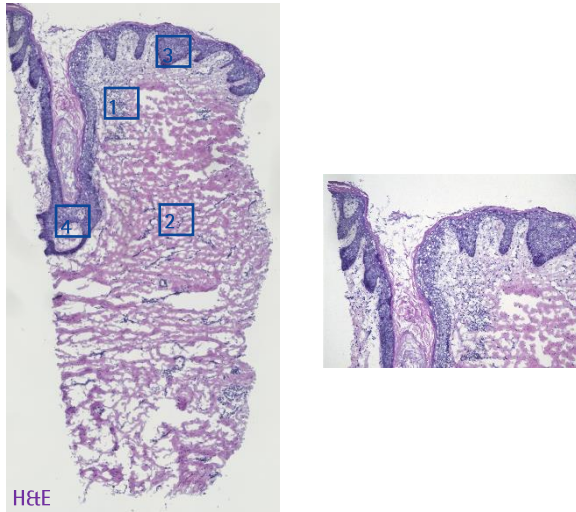
# Identification and characterization of a target

perilesional skin

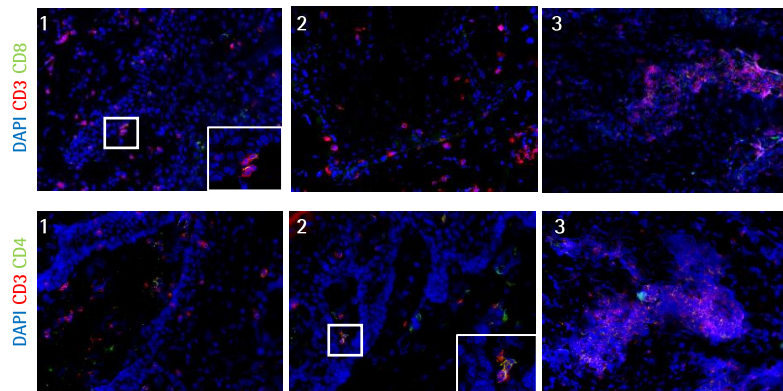
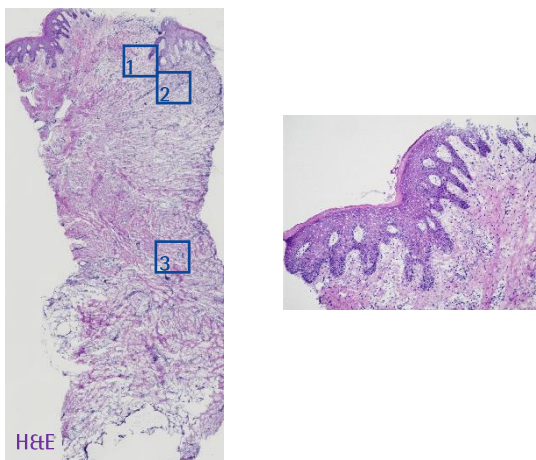


Access to  
diseased  
skin

fistula



nodule



## Additional techniques available to characterize a target:

- Multiplex immunostainings
- Multiplex *in situ* hybridization, bulk RNAseq or *in situ* transcriptomics
- Single cell isolation and FACS analysis
- Single cell isolation (also *in situ*) and scRNAseq
- Proteomic, and microbiome analysis, ...

Validate your target  
of interest *in vitro* and  
*ex vivo* using our  
customized models and  
individualized project  
designs.

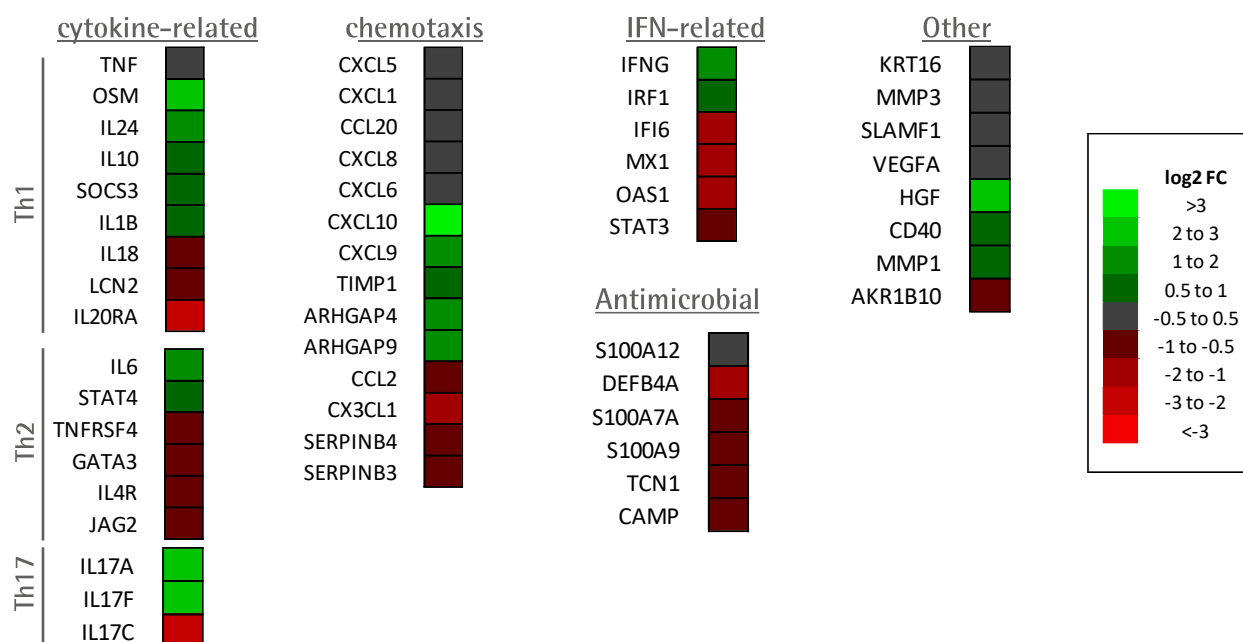
Functional studies  
*in vitro* using primary  
epidermal  
keratinocytes, hair  
follicle outer root  
sheath keratinocytes,  
or PBMCs

Induction of  
disease phenotype  
*in vitro* and *ex vivo*  
in human scalp  
skin

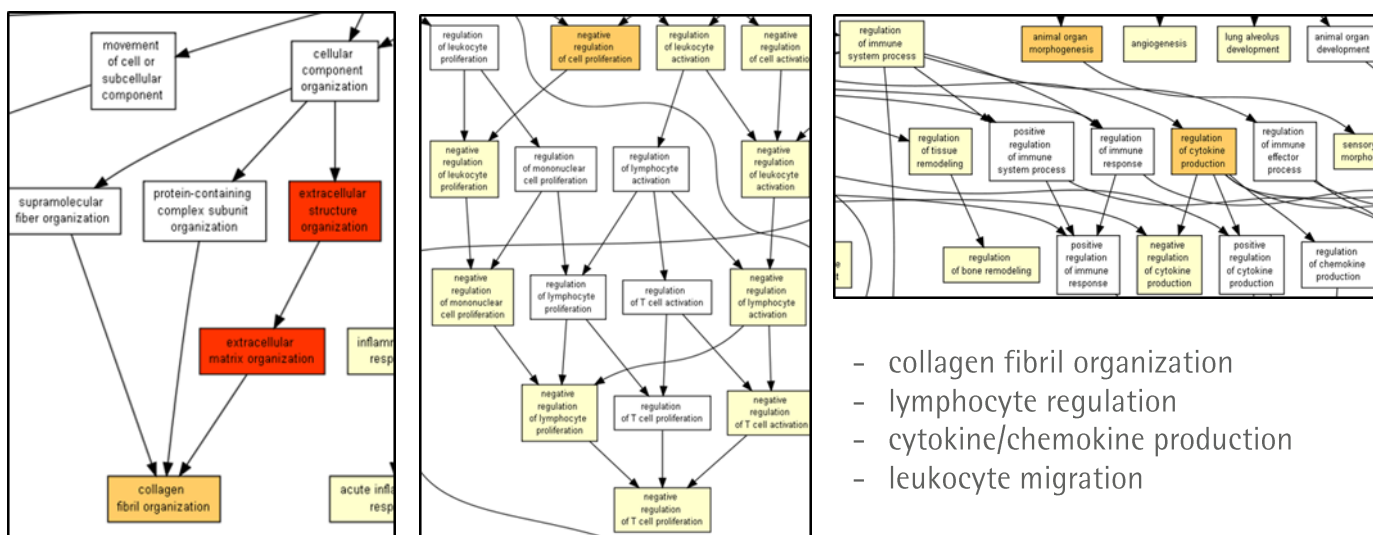
# Ex vivo model: Peri-lesional and lesional skin organ culture

## Transcriptome analysis of fistula: adalimumab treated vs. vehicle

### Selected differentially expressed genes

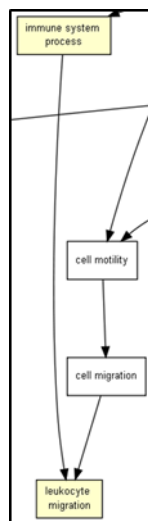


### Selected enriched pathways



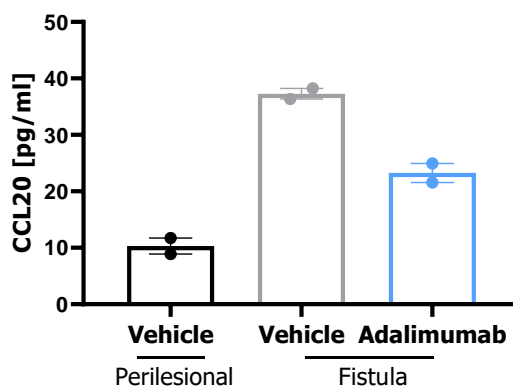
- collagen fibril organization
- lymphocyte regulation
- cytokine/chemokine production
- leukocyte migration

## Release of cytokines into the culture medium



Also available: Cytokine array for other cytokines important in disease pathogenesis and progression. Obtained from tissue lysates or plasma.

### CCL20 in the culture medium ELISA





# WHY US?



**MONASTERIUM  
LABORATORY**

A Q I M A Life Sciences Company

Great network of dermatologists and plastic surgeons collecting samples from healthy and diseased skin

Our vision is to provide our clients and partners with the highest quality research in investigative dermatology and trichology – from basic science to translational applied and contract research of high relevance for clinical applications.

World-class scientific leadership & international team

Clinically-relevant *ex vivo* and *in vivo* models

Strong academic background & publication record

## What we can do for our clients:

- Conceptualize & build proof-of-concept studies
- Carry out full service portfolio for pre-clinical skin & hair research (*in vitro/ex vivo* assays, and humanized mouse models)
- Investigate side effects in the skin or hair follicle
- Establish novel cutting edge methodologies and techniques
- Design tailor-made & customized assays for all needs
- Identify, characterize, or validate novel targets and therapeutics for skin & hair disorders
- Discover mechanistic action stories, biomarkers & predictors of response
- Conduct investigator initiated skin & hair clinical trials
- Provide access to human healthy & diseased skin and hair specimen
- Prepare comprehensive project reports & manuscript drafts

Our ambition is to establish and refine research techniques:  
Advanced Methodology Program

Global client list & testimonials

Investigative dermatology:  
Acne Vulgaris, Atopic Dermatitis, Psoriasis, Alopecia Areata, Androgenic Alopecia, Hidradenitis Suppurativa, Vitiligo, Chronic Itch, Prurigo Nodularis, etc.

Biobank:  
Full access to skin & hair samples (patients & healthy subjects)

Exceptional state-of-the-art research technology

We are supported by world-wide recognized experts in dermatology:  
Alfredo Rossi, Amos Gilhar, Désmond J. Tobin, Erwin Tschachler, Falk G. Bechara, Francisco Jimenez, Kristian Reich, Mauro Picardo, Thomas Luger, Tiago R. Matos, Vinzenz Oji, Athanasios Tsianakas and many more!