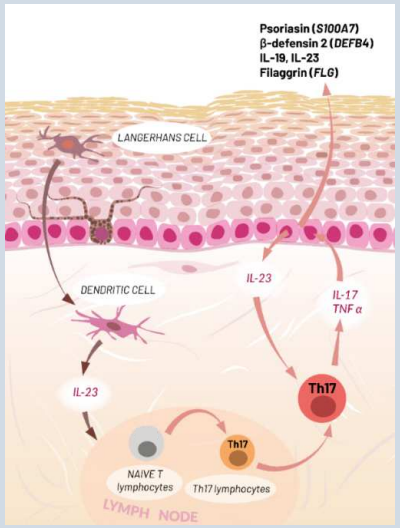
PSORIASIS MODELS – Th17 INFLAMMATION

Psoriasis is a frequent multifactorial chronic inflammatory skin disease.
IL-17, mostly secreted by Th-17 T-cells is the psoriasis main driver. It activates NFκB, C/EBP and STAT1 in keratinocytes and other skin cells. In response, activated keratinocytes synthetize antimicrobial peptides (e.g. psoriasin, βdefensin2) and cytokines (e.g. IL-23, IL-19).



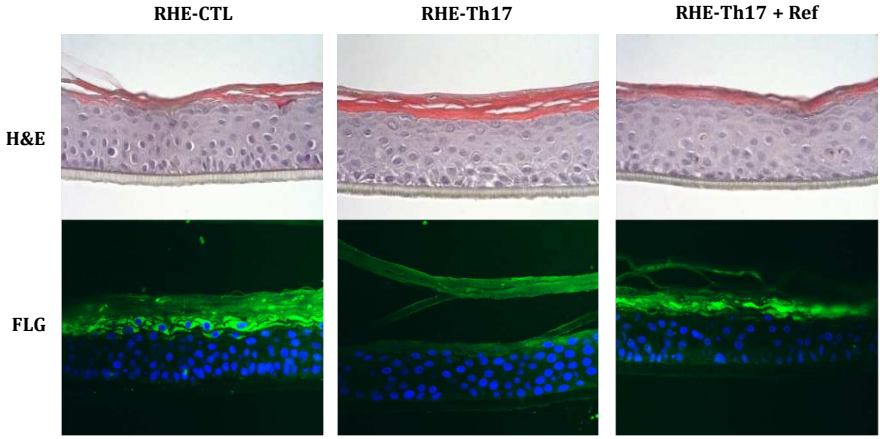
SKiN MODELS:

- **RHE-Th17**: reconstructed human epidermis treated with Th17 interleukins
- **NHEKs-Th17**: primary human keratinocytes treated with Th17 interleukins
- *Positive reference (Ref) available for full objectivation*

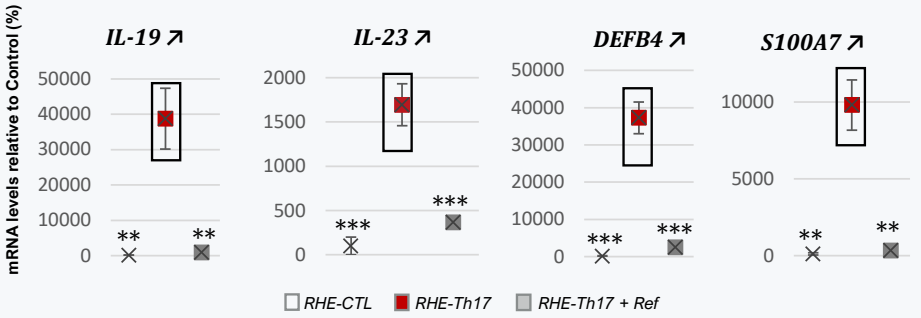
ENDPOiNTS:

- Morphological analysis by Hemalun/Eosin (H/E) staining
- Level of activation of **transcription factors** involved in Th-17 inflammation (NFκB, STAT3, *etc.*)
- Localization and quantification of protein markers by **western blotting** (IκBζ) or **immuno-staining** (FLG, Psoriasin, βdefensin2, *etc.*)
- **Quantification of cytokines** released in culture supernatants by ELISA (IL-19, IL-23)
- **Expression of genes playing key roles in psoriasis, by RT-qPCR** : individual gene expression by TaqMan or 96 key genes expression by TaqMan Low-Density Array (contact StratiCELL for more details about the *Sensitive-TLDA* arrays)

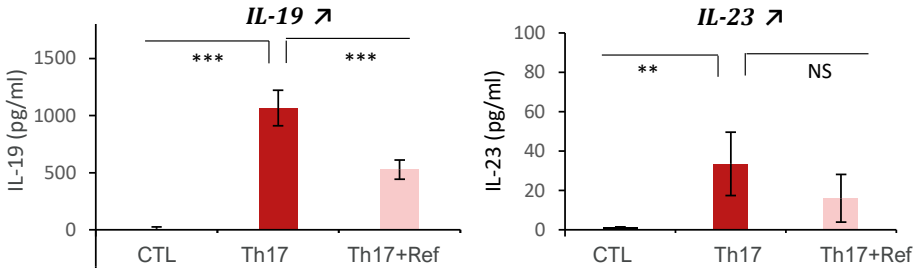
H&E staining and Filaggrin (FLG) immunofluorescence of RHE untreated (CTL) or treated with Th17 cytokines (RHE-Th17) compared to positive reference (RHE-Th17 + Ref).



*Gene expression levels evaluated by RT-qPCR (**: p<0,01 - ***: p<0,001).*



*IL-19 and IL-23 release measured by ELISA in RHE supernatants (**: p<0,1 - ***: p<0,001).*



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