ULTRASTRUCTURAL LOCALIZATION AND EVOLUTION OF CELL SURFACE GLYCANS IN HUMAN STRATUM CORNEUM

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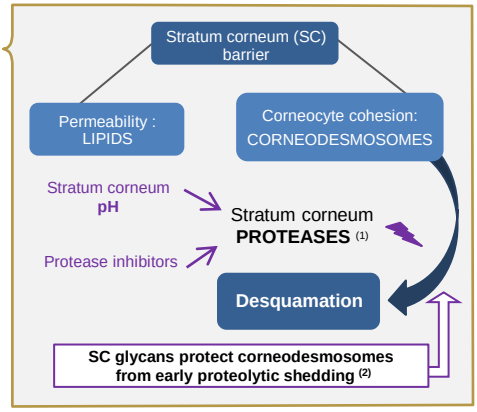


METHODS

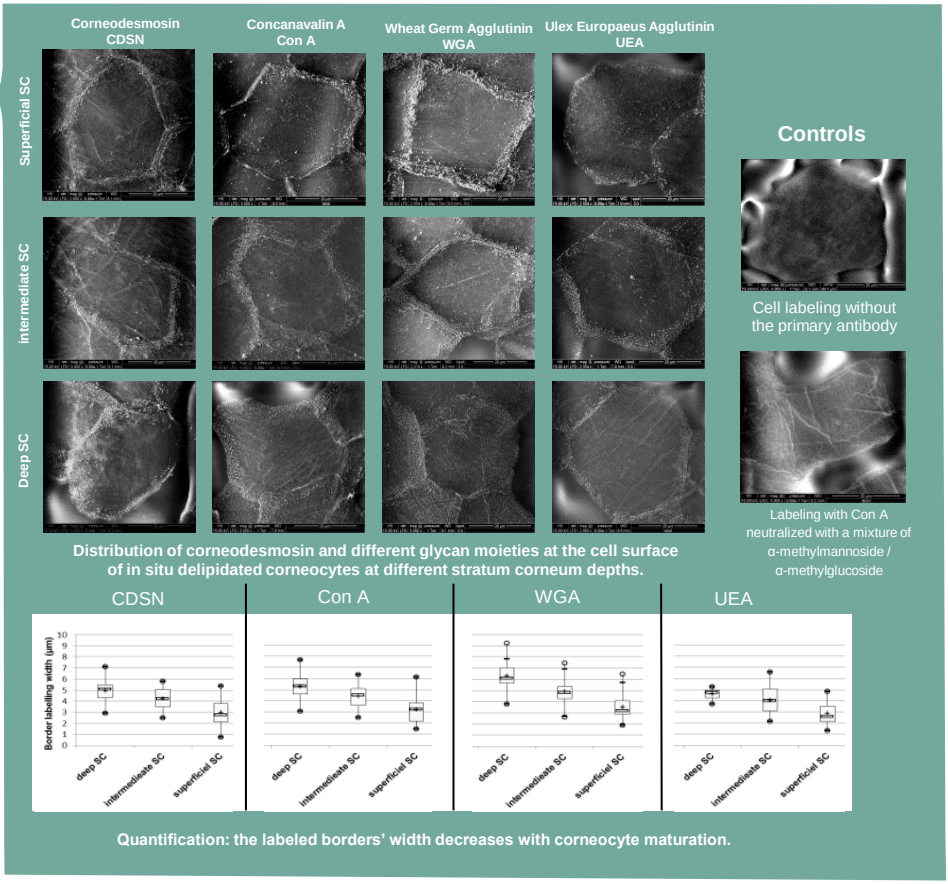
Scanning Electron Microscopy

- D-squame® strips of native or delipidated skin explants (abdominoplasty, 30-50 years old subjects).
- Labeling with anti-corneodesmosin monoclonal antibody (Abnova, Taipei, Taiwan) revealed with goat anti-mouse 10nm colloidal gold conjugate (BBi, Cardiff, UK).
- Labeling with colloidal gold-conjugated lectins (EY laboratories, San Mateo, USA).
- Signal amplification using a silver enhancement kit (Bbi, Cardiff, UK). *Samples were examined with a Quanta 250 FEI SEM*

Quantification

- Width of the cell border labeling was measured using imageJ

RESULTS



CONCLUSION

- **Glycans remain present at the cell surface of corneocytes, even the most superficial ones.**
- **Glycans are mostly concentrated at the corneocyte periphery, where the corneodesmosin labeling is situated.**
- **Within the SC, glycans and corneodesmosomes are concomitantly degraded during the cell evolution towards the skin surface. This degradation progresses from the central plateau of the corneocyte in the direction of its periphery.**
- **This minimally-invasive approach can be used for studies of different barrier dysfunctions and related diseases**

The authors declare no conflict of interest