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A breached barrier : analysis of stratum corneum lipids and their role in eczematous patients

Smeden, J. van

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Author: Smeden, Jeroen van

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Stellingen

Behorende bij het proefschrift

A BREACHED BARRIER

Analysis of stratum corneum lipids and their role in eczematous patients

CER chain length rather than CER subclass is important for the reduced skin barrier function in AE.
(This thesis)

The coherence between chain length of CERS and FFAs is intriguing, and demonstrates how closely related they are from a metabolic perspective.
(This thesis)

The absence of a direct relation between mutations in the filaggrin gene and the composition of the SC lipids suggests that both are different/independent actors for the development of atopic eczema.
(This thesis)

Fundamental knowledge about SC lipid changes in human skin equivalents may lead to a better understanding of the reduced skin barrier function in atopic eczema and Netherton disease.
(This thesis)

Ceramide-based moisturizers have been shown to be beneficial in reducing TEWL, improving barrier function, and maintaining hydration of the stratum corneum, and thus, can be a useful component in AD management
(Sajić D. et al., Skin Therapy Letter. 17 (7), 2012)

There is an important role for long-chain FA in the normal structure and function of the mammalian skin as a barrier to water loss
(Vasireddy V. et al., Hum Mol Genet. 16 (5), 2007)

Changes in ceramide composition or a reduction in ceramide or free fatty acid chain length might explain a decrease in lamellar periodicity
(Pilgram et al., Skin, Hair, and Nails: Structure and Function, CRC Press, 2003; referring to Lavrijsen et al., J Invest Dermatol. 105 (4), 1995)

It can be expected that the continued incremental developments in LC/MS will soon bear fruit in the quest for a greater understanding of human disease, leading to new drug targets and therapies.
(Griffiths W.J. and Wang Y., Chem Soc Rev. 38 (7), 2009)

If your experiment needs statistics, you ought to have done a better experiment.
(Ernest Rutherford)

The Answer to the Great Question... Of Life, the Universe and Atopic eczema... Is... 42 carbon atoms.
(Freely interpreted from Douglas Adams, The Hitchhiker's Guide to the Galaxy, Pan Books, 1979)

Corneocytes are the ultimate sacrificing cells: they are under constant stress while producing high amount of self-destructive components, and eventually die. All in order to protect the human body against constant threats.

Therefore do not worry about tomorrow, for tomorrow will worry about itself.
Sufficient for the day is its own trouble.
(Matthew 6:34)