

KERATINOCYTE & SKIN PHYSIOLOGY

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A new melanogenesis stimulating agent

The search of substances able to stimulate the melanogenesis in the skin was undertaken in our laboratories. Such a substance should be able to provide a tanning with a natural and even skin tone with the advantage of skin protection against UV-light induced damages like the formation of DNA photoproducts for instance. The identified new active substance was tested ex vivo to evaluate its tanning potential without UV exposure 10 days long. Histological sections of the explants were analyzed under microscope and the amount of melanin before/after application of this substance was quantified. The effect on dendricity of melanocytes and their connectivity to keratinocytes was also examined. Additionally L,a,b values were measured at the surface of the explants using a chromameter. All parameters were compared to the natural benchmark – UV-irradiation. After 10 days, the study showed a 43% increase of melanin content in the basal layer after application of our active substance in comparison to untreated control. Moreover a decrease of 5% of the L values at the surface of the explants was measured and an ITA value drop of 9 degrees was calculated confirming the darkening of the explants. Thus our new skin tanning active was shown to be able to stimulate the melanogenesis in the skin, leading to a natural and even tan associated with the protection of the skin against the damaging effects of UV-irradiations.