**GD-Forum „Young Scientists"**

# GPI salt, a powerful active ingredient fighting against inflammageing

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GPI salt is a semi-synthetic molecule derived from sunflower seed lecithin and acts against inflammageing to prevent the appearance of signs of ageing.

The transcription factor NF-kB (nuclear factor kappa-B) plays a central role in inflammatory processes of the skin. Multiple factors including reactive oxygen species, glycation, the production of Advanced Glycation End products (AGEs) and stress contribute to the translocation of NF-kB into the nucleus leading to inflammatory reactions.

The mechanism of action of GPI salt is based on the inhibition of the translocation of NF-kB into the nucleus, suppressing the production of pro-inflammatory mediators. Furthermore, the formation of AGEs is reduced, which normally support the translocation of NF-kB into the nucleus.

In vitro, it was shown that GPI salt significantly reduces the release of pro-inflammatory mediators and counteracts the signs of premature ageing, including skin redness, swelling and collagen degradation.

In vivo, the soothing effect of GPI salt was demonstrated on normal and reactive skin. After 24 hours, GPI salt visibly reduces skin redness and the inflammatory reaction. GPI salt allows to quickly alleviate skin reactions before long-term skin damages and signs of ageing are caused. With respect to sensitive skin, GPI salt helps to reduce skin irritation in only 4 hours and allows to immediately relieve a cutaneous reaction providing comfort to the skin.

To summarize, GPI salt acts upstream the pro-inflammatory cascade and leads to the deactivation of the NF-kB signalling pathway by reducing the production of AGEs and by inhibiting the translocation of NF-kB into the nucleus. The reduced translocation leads to a diminished release of pro-inflammatory mediators. GPI salt prevents inflammageing and provides a fast soothing effect to alleviate discomfort related to cutaneous reactions.