



DSM Nutritional Products, Personal Care & Aroma

www.dsm.com/corporate/markets/personal-care.html

SYN-UP

PRODUCT/SERVICE BACKGROUND INFORMATION

DSM Personal Care & Aroma developed SYN-UP, a product based on the peptide BSFAB (INCI: Amidinobenzyl Benzylsulfonyl D-Seryl Homophenylalaninamide Acetate) which is a dual serine protease inhibitor against urokinase and plasmin. BSFAB has been shown to counteract sensitive skin and inflammation, to ameliorate skin hydration, and to increase skin resilience towards environmental stressors by strengthening the skin barrier. Particularly skin hydration, but also sensitive and inflamed skin are topics of aging skin. In addition, such issues are also known particularly for post-menopausal skin. We therefore aimed at expanding the peptide's activity into a pro-aging proposition.

WHAT IS THE COMPANY INTRODUCING TO THE MARKET/INDUSTRY?

We conducted a couple of anti-aging related investigations with the peptide both in vitro and ex vivo. We tried to stay close to the peptide's mode-of-action. We found an anti-melanogenic activity in vitro based on the inhibition of plasmin induced pigmentation suggesting activity against age-spots and uneven skin tone in vivo. Furthermore, since the plasmin system activates matrix-metalloproteases, we investigated further the expression of MMP-9 and its impact on collagen IV in the basal membrane. Again, there was a beneficial effect of BSFAB on the degradation of collagen IV by MMP-9. In addition, we also found a beneficial effect of the SYN-UP peptide on collagen I expression in dermal fibroblasts in vitro.

HOW WILL THIS NEW PRODUCT/SERVICE IMPACT THE INDUSTRY (BENEFITS)?

With the new findings on anti-aging mechanisms, we extend our proposition for SYN-UP from sensitive skin and barrier care of mainly the stratum corneum into epidermal and dermal benefits. As such, we further unlock SYN-UP's potential showing its beneficial effects against the various skin damaging effects of the plasmin system. By targeting the plasmin system, SYN-UP restores 360 degrees skin homeostasis after chronological or environmentally induced dry skin and aging.